

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT	
(highlight changes)	

	<b>A</b>	APPLIC/	ATION FOR	PERMIT TO	DRILL		5. MINERAL LEASE NO: ML-22651	6. SURFACE: State
1A. TYPE OF WO	DRK: DF	RILL 🔽	REENTER [	DEEPEN			7. IF INDIAN, ALLOTTEE OF N/A	R TRIBE NAME:
B. TYPE OF WE	ELL: OIL	GAS 🗹	OTHER	SIN	GLE ZONE 🗹 MULTIPLE	ZONE 🗌	8. UNIT or CA AGREEMENT Natural Buttes U	
2. NAME OF OPE	ERATOR: e Oil & Gas	Onshore,	LP			<del></del>	9. WELL NAME and NUMBE NBU 1022-02D	
3. ADDRESS OF 1099 18th	OPERATOR: Street #1200			CO ZIP 80	PHONE NUMBER (720) 929-6		10. FIELD AND POOL, OR Natural Buttes F	
	WELL (FOOTAGES 1090' FNL	s) し35 & 990' FV	557× 44	267764 LAT 39.9822	39,98 <b>2</b> 181 267 LON-109,413150		11. QTR/QTR, SECTION, TO MERIDIAN:	,
AT PROPOSEE	PRODUCING ZON	ie: N/A			-109.412426	<i>,</i>	NWNW 2 10	9S 22E
14. DISTANCE IN	MILES AND DIREC	CTION FROM N	EAREST TOWN OR PO	OST OFFICE:			12. COUNTY:	13. STATE: UTAH
	Notheast of			······································		. <u>.</u>	Uintah	
15. DISTANCE TO 990'	Ö NËAREST PROPI	ERTY OR LEAS	E LINE (FEET)	16. NUMBER O	FACRES IN LEASE: 620	0.25   <sup>17. N</sup>	IUMBER OF ACRES ASSIGNE	D TO THIS WELL:
18. DISTANCE TO APPLIED FOR	O NEAREST WELL R) ON THIS LEASE	(DRILLING, CC (FEET)	MPLETED, OR	19. PROPOSED			OND DESCRIPTION:	
1500'	S (SHOW WHETHER	P DE PT CB I	TC \.	22 ADDDOVIM	8,: ATE DATE WORK WILL START:		LB0005237	· · · · · · · · · · · · · · · · · · ·
4975 GR	(SHOW WHETHER	NDF, NI, GR, I	10.).	22. APPROXIMA	ATE DATE WORK WILL START;	1	Days	
24.			PROPOS	SED CASING A	ND CEMENTING PROGR	RAM	**************************************	
SIZE OF HOLE	CASING SIZE, O	GRADE, AND W	EIGHT PER FOOT	SETTING DEPTH	CEMENT TY	PE, QUANTITY	, YIELD, AND SLURRY WEIGH	
14"				40	Premium Cement		215 sx 1.1	8 15.6
					Premium Cement		100 sx 1.1	8 15.6
40.4/49	0.5(0)		00"				200	
12 1/4"	9 5/8"	J-55	36#	2,200	Premium Cement Premium Cement		230 sx 3.8 180 sx 1.1	· · · · · · · · · · · · · · · · · · ·
7 7/8"	4 1/2"	I-80	11.6#	8 570	Premium Lite II	· ·	100 sx 3.3	· · · · · · · · · · · · · · · · · · ·
7770	7 1/2	1-00	11.011	0,010	50/50 Poz/G		370 sx 1.3	
<u></u>		·						
25.				ATTA	CHMENTS			
VERIFY THE FO	LLOWING ARE ATT	ACHED IN ACC	ORDANCE WITH THE	UTAH OIL AND GAS C	ONSERVATION GENERAL RULES:			
WELL PL	AT OR MAP PREPA	ARED BY LICE	SED SURVEYOR OR I	ENGINEER	COMPLETE DRILLING	PLAN		
EVIDEN	CE OF DIVISION OF	WATER RIGH	TS APPROVAL FOR US	SE OF WATER	FORM 5, IF OPERATO	R IS PERSON	OR COMPANY OTHER THAN	THE LEASE OWNER
				· <u>-</u>	<u>l</u>			·
NAME (PI FASE	PRINT) Kevin I	McIntyre			TITLE Regulator	ry Analys	t	
	K		~ //	*	2/22/2008	3		· · · · · · · · · · · · · · · · · · ·
SIGNATURE					roved by the			
(This space for Sta	ate use only)				n Division of as and Mining	Section Sections	CEIVED	
API NUMBER AS	SIGNED:	13-047	39955		APPROVAL:	A	B 2 6 2008	
		T	<u> </u>	Date:	11,20-60-			
(11/2001)				<b>7</b> .45 .25 .50 .50	1//////////////////////////////////////	DOW. OF C	OIL, GAS & MINING	

#### Kerr-McGee Oil & Gas Onshore LP T10S, R22E, S.L.B.&M. Well location, NBU #1022-2D, located as shown in NW 1/4 NW 1/4 of Section 2, T10S, R22E, S.L.B.&M., Uintah County, Utah. N89°58'39"E - 2658.38' (Meas.) T9SBASIS OF ELEVATION S89'58'E - 2640.00' (G.L.O.) T10S 1977 BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION Brass Cap Brass Cap 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES Lot 4 (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID Lot 3 Lot 2 Lot 1 ELEVATION IS MARKED AS BEING 4697 FEET. NBU #1022-2D 990' 2679.60 BASIS OF BEARINGS Elev. Ungraded Ground = 4977' BASIS OF BEARINGS IS A G.P.S. OBSERVATION. N0.16°W Alum. Cap 1991 Alum. Cap, Pile of Stones SCALE CERTIFICATE THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM Lót 7 FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME THE TRUTTEND CORRECT TO THE Lot 5 Lot 8 **Allotment** #265 #16 1991 Gov't Alum. .397.32' (G.L.O.) 1991 Gov't Alum. Cap, Steel Post, Cap, Steel Post, W.C. Set Stone UINTAH ENGINEERING LAND STRVEYING SOUTH 200 EAST - WARNAN UTAH 84078 Pile of Stones Pile of Stones N89°53'39"W - 2675.68'-(Meas. N89°59'30"W - 2247.81' (Meas.) 85 SOUTH 200 EAST N89°59'30"W - 2645.13' (Meas.)-LEGEND: (NAD 83) (435) 789-1017 True Possition ---S 1/4 Corner LATITUDE = 39.58.56.16" (39.982267) SCALE DATE SURVEYED: = 90° SYMBOL DATE DRAWN: LONGITUDE = 109°24'47.34" (109.413150) 1" = 1000'01-04-08 01-07-08 PROPOSED WELL HEAD. (NAD 27) PARTY REFERENCES A.F. T.M. C.C. LATITUDE = 39.58.56.28" (39.982300) G.L.O. PLAT = SECTION CORNERS LOCATED. LONGITUDE = 109°24'44.88" (109.412467) WEATHER Kerr-McGee Oil & = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.) COLD Gas Onshore LP

#### NBU 1022-02D NWNW Sec. 2, T10S,R22E UINTAH COUNTY, UTAH ML-22651

#### **ONSHORE ORDER NO. 1**

#### DRILLING PROGRAM

#### 1. <u>Estimated Tops of Important Geologic Markers:</u>

Formation	<u>Depth</u>
Uinta	0- Surface
Green River	1087'
Wasatch	4198'
Mesaverde	6555'
TD	8570°

#### 2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>
Water	Bird's Nest	
	Green River	1087
	Mahogany	1736'
Gas	Wasatch	4198'
Gas	Mesaverde	6555'
Other Minerals	N/A	

#### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

#### 4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

#### 5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

#### 6. Evaluation Program:

Please refer to the attached Drilling Program.

#### 7. **Abnormal Conditions**:

5313

Maximum anticipated bottomhole pressure calculated at 8570' TD, approximately equals 3239 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 1885 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

#### 9. <u>Variances:</u>

Please refer to the attached Drilling Program.

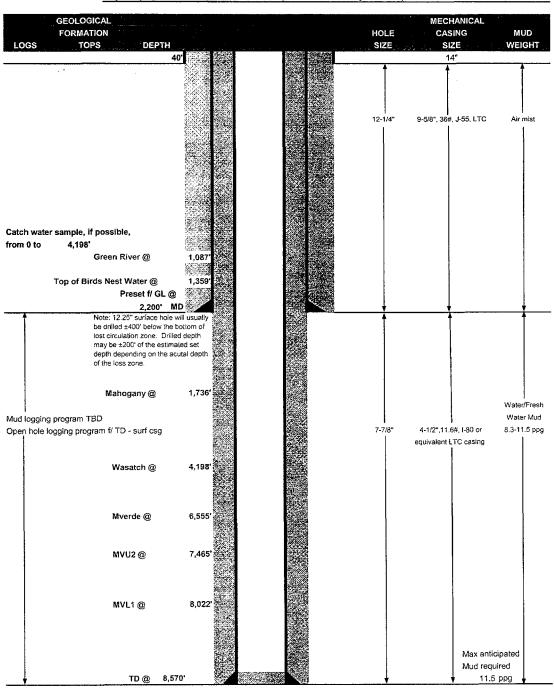
#### 10. Other Information:

Please refer to the attached Drilling Program.



#### KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	February	15, 2008		
WELL NAME	NBU 1022-02D	TD	8,570'	MD/TVD		
FIELD Natural Bu	ttes COUNTY Uintah STATE Ut	ah EL	EVATION	4,975' GL	KE	3 4,990'
SURFACE LOCATION	1090' FNL & 990' FWL				BHL	Straight Hole
	Latitude: 39.982267 Longitude: -109.41	3150				
OBJECTIVE ZONE(S)	Wasatch/Mesaverde					
ADDITIONAL INFO	Regulatory Agencies: BLM (SURF & MINERALS), U	DOGM, Tri-County	/ Health De	pt.		





## KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

#### CASING PROGRAM

_			_						DESIGN FACTO	ORS
	SIZE	·	INTERV	AL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
					- 5			3520	2020	453000
SURFACE	9-5/8"	0	to	2,200	36.00	J-55	LTC	1.09	1.96	6.53
	•							7780	6350	201000
PRODUCTION	4-1/2"	0	to	8570	11.60	1-80	LTC	2.40	1.24	2.32
							in the		1 1	
					1 1			1	ľ	

<sup>1)</sup> Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.5 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP 3239 psi

#### CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele			5.48	
	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt	100		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface	e, option	2 will be util	lized	
Option 2	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite	230	35%	11.00	3.82
	j		+.25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.	l	15.60	1.18
PRODUCTION	ON LEAD	3,690'	Premium Lite II + 3% KCI + 0.25 pps	400	60%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel	1			
			+ 0.5% extender		· .		
				]			
	TAIL	4,880'	50/50 Poz/G + 10% salt + 2% gel	1370	60%	14.30	1.31
			+.1% R-3	1	.		

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### FLOAT EQUIPMENT & CENTRALIZERS

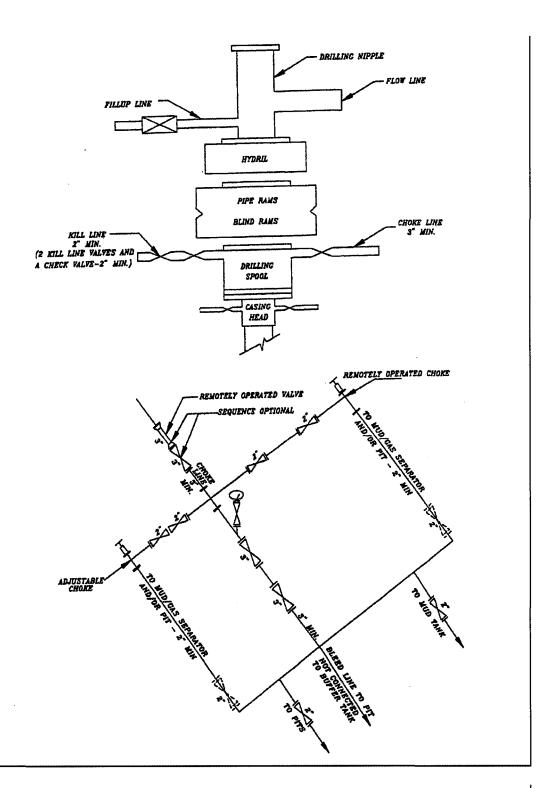
SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

	BOPE: 11*5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder &								
	tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper								
	& lower kelly valves.								
	Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.								
	Most rigs have PVT Systems	for mud monitoring. If no PVT is available, visua	il monitoring will be utilized.						
DRILLING	ENGINEER:		DATE:						
Dittelino		Brad Laney							
		Diac Lailey							
ORILLING	SUPERINTENDENT:	brad Carley	DATE:						

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

#### **EXHIBIT A**



#### NBU 1022-02D NWNW SEC 2-T10S-R22E UINTAH COUNTY, UTAH ML-22651

#### ONSHORE ORDER NO. 1

#### **MULTI-POINT SURFACE USE & OPERATIONS PLAN**

#### 1. Existing Roads:

Directions to the proposed location are attached.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

#### 2. Planned Access Roads:

The proposed access road is approximately 150' +/-. Refer to Topo Map B.

The access road will be crowned (2 to 3%), ditched and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet. Graveling or capping the roadbed will be performed as necessary to provide a well constructed, safe road. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely.

Surface disturbance and vehicular traffic will be limited to the proposed location and proposed access route. Any additional area needed will be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest Service publication: <u>Surface Operating Standards for Oil and Gas Exploration and Development</u>. 1989.

The road surface and shoulders will be kept in a safe and usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear and free-flowing and will be maintained according to original construction standards. The access road surface will be kept free of trash during operations. All traffic will be confined to the approved disturbed surface. Road drainage crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing or shall the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow shall be pushed outside of the borrow ditches, and the turnouts kept clear so that snowmelt will be channeled away from the road.

#### 3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

#### NBU 1022-02D

#### Surface Use and Operations Plan

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#### 4. Location of Existing & Proposed Facilities:

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Carlsbad Canyon (2.5 Y 6/2) as determined during the on-site inspection.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Refer to Topo Map D for the placement of the proposed pipeline.

#### 5. <u>Location and Type of Water Supply:</u>

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec.32, T4S,R3E, Water User Claim #43-8496, Application #53617.

Where available a 2" or 3" poly pipe will be installed with the existing rights-of-way to supply water during drilling and completion operations. There will be no new disturbance needed and the poly line will be removed after completion operations. The fresh water will be supplied from the power plant located within the following Sections 23, 24, 25, 26, 35, & 36, T8S, R23E.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### 6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

#### 7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec.35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E. (Request is in lieu of filing Form 3160-5, after initial production).

#### 8. Ancillary Facilities:

None are anticipated.

#### 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

#### 10. Plans for Reclamation of the Surface:

#### Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring of the pit, the stockpiled topsoil will be spread evenly over the location up to the rig anchor points, the location shall be reshaped to the

#### NBU 1022-02D

#### Surface Use and Operations Plan

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original contour to the extent possible, and the location will be reseeded with Crested Wheatgrass using appropriate reclamation methods.

#### Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

#### 11. Surface Ownership:

State of Utah SITLA 675 E. 500 S., Ste 500 Salt Lake City, UT 84102-2818

#### 12. Other Information:

A Class III archaeological survey and a paleontological survey have been completed and the reports will be submitted separately.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance. The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

#### 13. Lessee's or Operators's Representative & Certification:

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP 1099 18<sup>th</sup> Street #1200 Denver, CO 80202 (720) 929-6226 Randy Bayne Drilling Manager Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, UT 84078 (435)781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

#### NBU 1022-02D

#### **Surface Use and Operations Plan**

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Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and the conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for the lease activities is being provided by Statewide Bond #RLB0005237.

I hereby certify that the proposed drill site and access route has been inspected and that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Kevin McIntyre

February 21, 2008

Date

## Kerr-McGee Oil & Gas Onshore LP

NBU #1022-2D

LOCATED IN UINTAH COUNTY, UTAH **SECTION 2, T10S, R22E, S.L.B.&M.** 

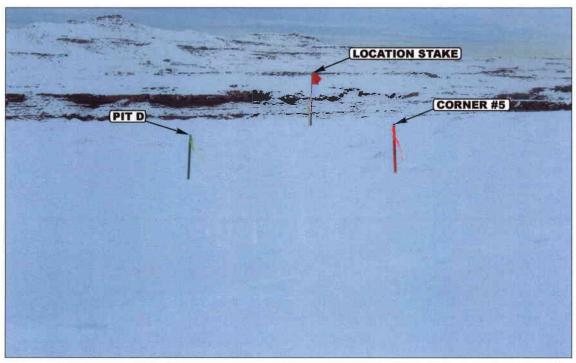


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

**CAMERA ANGLE: NORTHEASTERLY** 



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

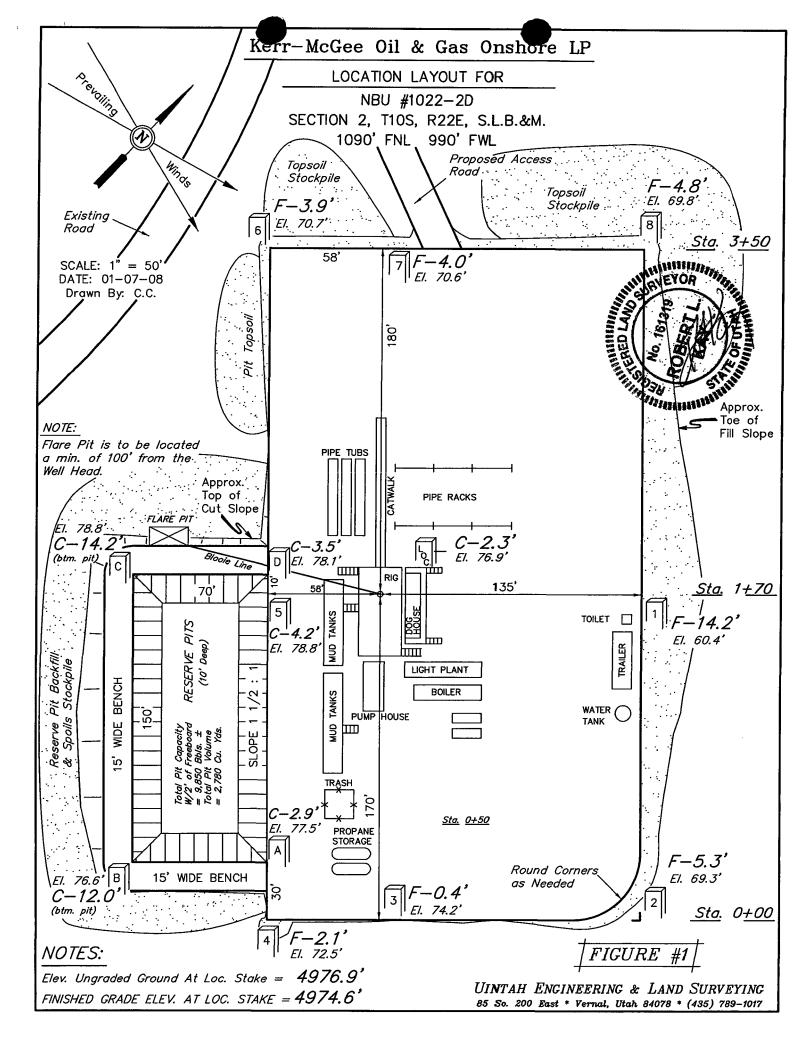
**CAMERA ANGLE: EASTERLY** 

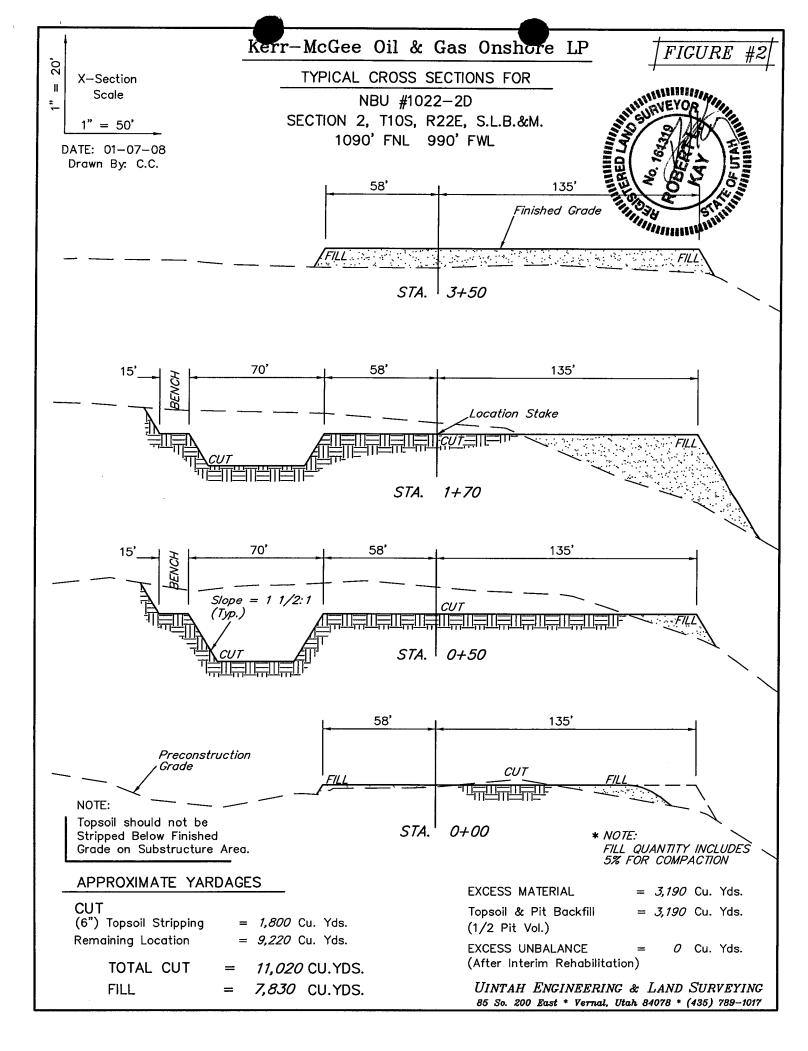


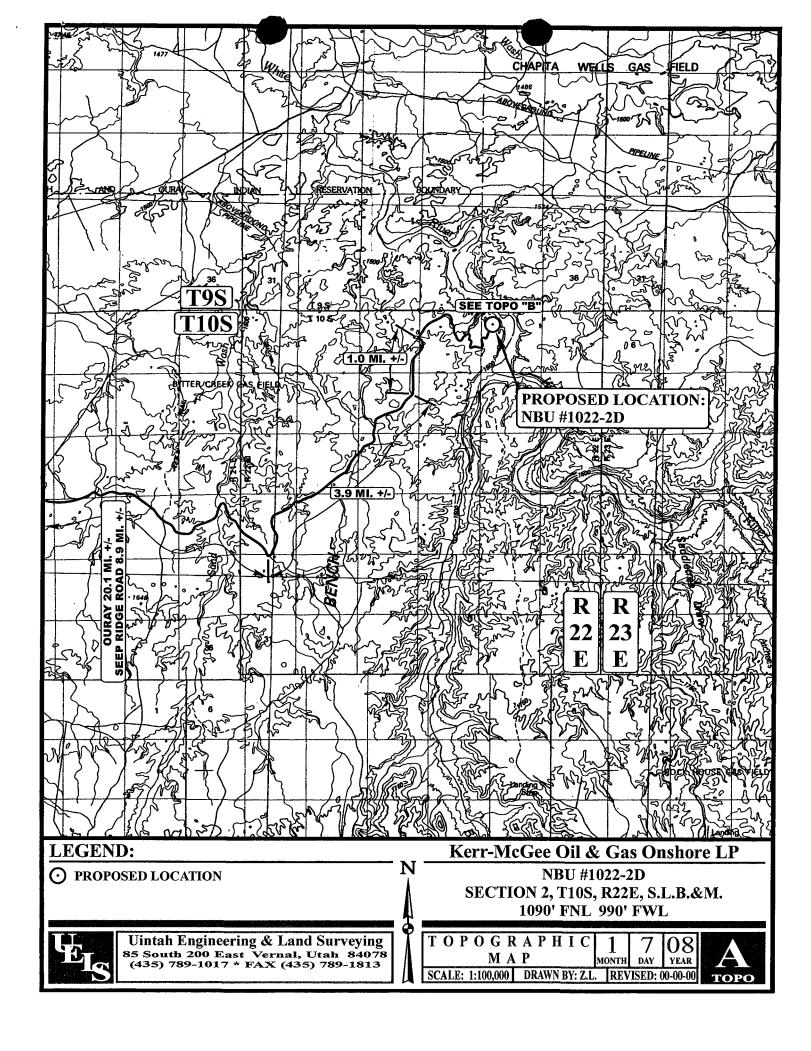
Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 435-789-1017 vels@uelsinc.com

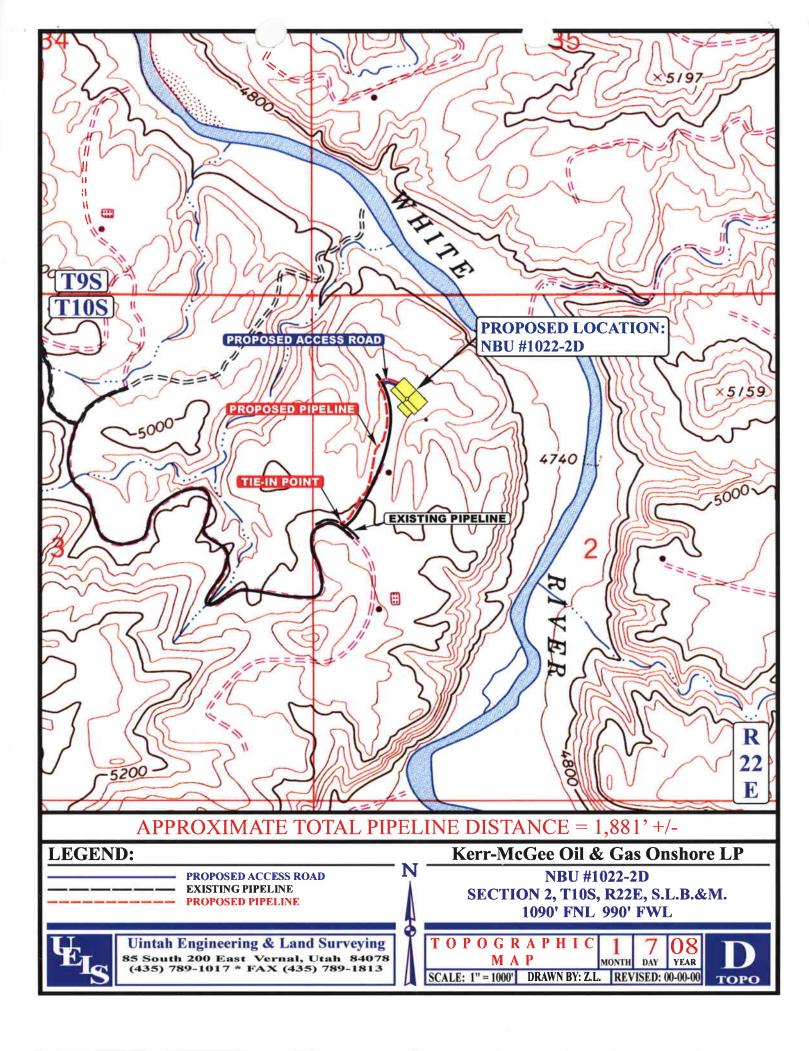
**LOCATION PHOTOS** TAKEN BY: A.F. DRAWN BY: Z.L. REVISED: 00-00-00

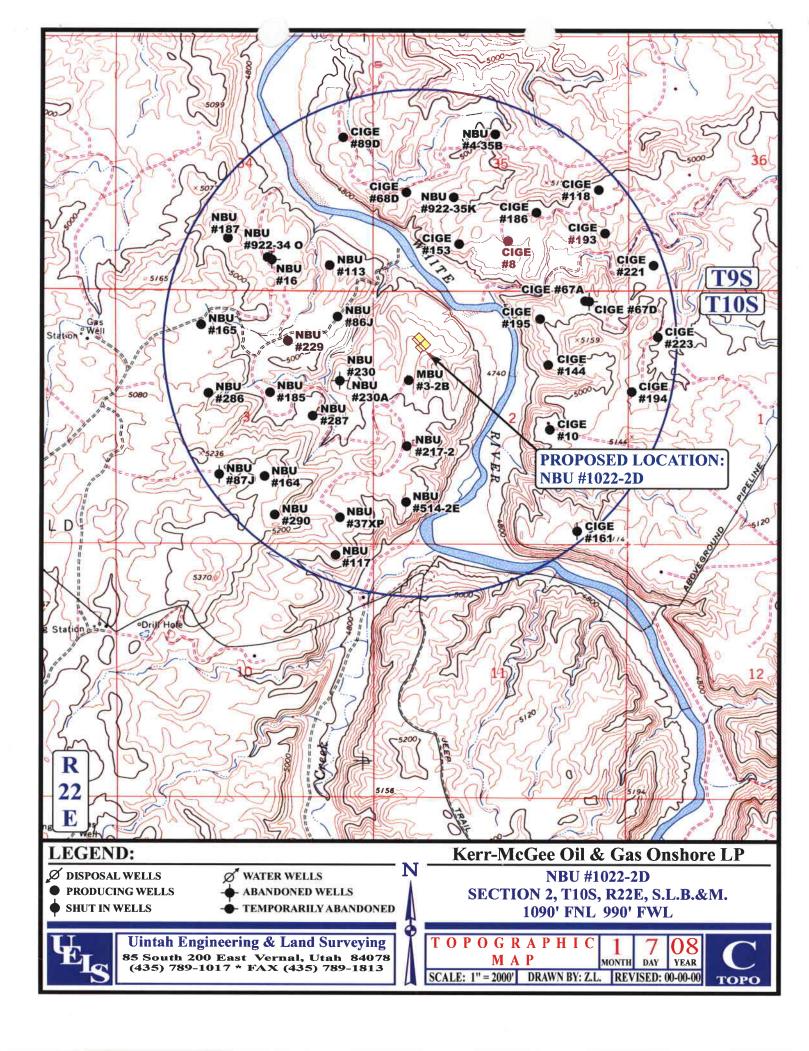
**РНОТО** 

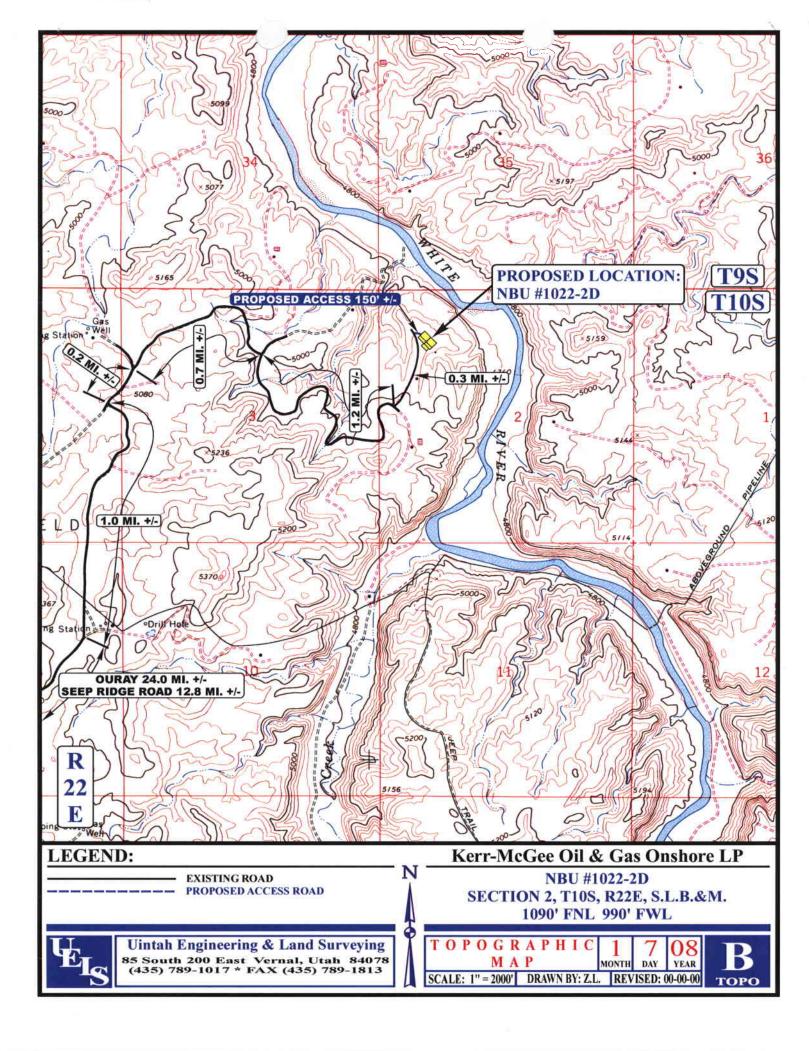












## Kerr-McGee Oil & Gas Onshore LP

NBU #1022-2D

LOCATED IN UINTAH COUNTY, UTAH SECTION 2, T10S, R22E, S.L.B.&M.

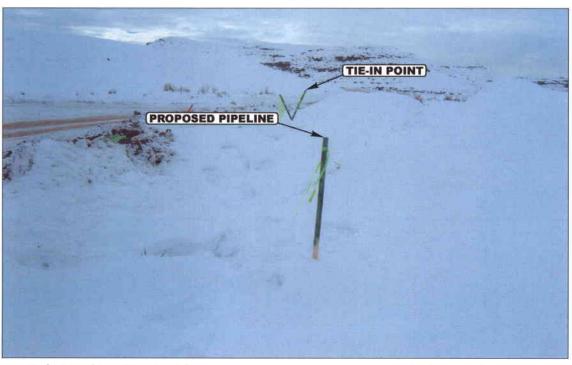


PHOTO: VIEW FROM PROPOSED PIPELINE

**CAMERA ANGLE: SOUTHWESTERLY** 



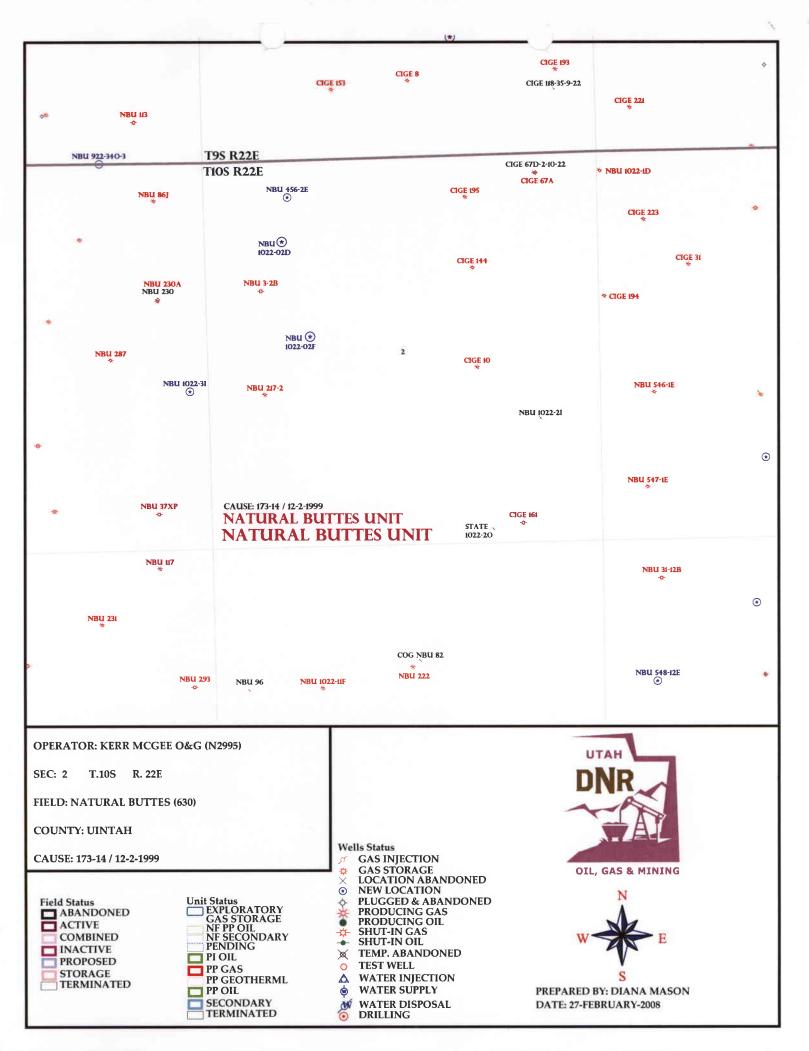
PHOTO: VIEW FROM ALONG PROPOSED PIPELINE

**CAMERA ANGLE: NORTHERLY** 



PIPELINE	PHOTOS	1 MONTH	7 DAY	08 YEAR	РНОТО
TAKEN BY: A.F.	DRAWN BY: Z.L	REV	ISED:	00-00-00	

APD RECEIVED: 02/26/2008	API NO. ASSIGNED: 43-047-39955
WELL NAME: NBU 1022-02D  OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  CONTACT: KEVIN MCINTYRE	PHONE NUMBER: 720-929-6226
PROPOSED LOCATION:	INSPECT LOCATN BY: / /
NWNW 02 100S 220E SURFACE: 1090 FNL 0990 FWL	Tech Review Initials Date
BOTTOM: 1090 FNL 0990 FWL	Engineering DRD 5/12/07
COUNTY: UINTAH LATITUDE: 39.98218 LONGITUDE: -109.4124	Geology
UTM SURF EASTINGS: 635557 NORTHINGS: 44267	76 Surface
FIELD NAME: NATURAL BUTTES ( 630  LEASE TYPE: 3 - State  LEASE NUMBER: ML-22651  SURFACE OWNER: 3 - State	PROPOSED FORMATION: WSMVD COALBED METHANE WELL? NO
Plat  Bond: Fed[] Ind[] Sta[] Fee[]  (No. 220   3542 )  Potash (Y/N)  Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. 43-8496 )  RDCC Review (Y/N)  (Date: )  MM Fee Surf Agreement (Y/N)  MM Intent to Commingle (Y/N)	LOCATION AND SITING: R649-2-3.  Unit: NATURAL BUTTES R649-3-2. General
STIPULATIONS:	ATEMENT OF BASIS  SHALE  (ce (sg (mt stop)



## **Application for Permit to Drill**

## **Statement of Basis**

4/9/2008

#### Utah Division of Oil, Gas and Mining

Page 1

APD No

**Operator** 

API WellNo

Status

Well Type GW

**Surf Ownr** 

**CBM** No

701

43-047-39955-00-00

KERR-MCGEE OIL & GAS ONSHO

Surface Owner-APD

NATURAL BUTTES

Field

Well Name NBU 1022-02D

Unit

NATURAL BUTTES

Type of Work

NWNW 2 10S 22E S Location

1090 FNL 990 FWL

GPS Coord (UTM) 635557E 4426776N

#### **Geologic Statement of Basis**

Kerr McGee proposes to set 2,200' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,300'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 2. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

**Brad Hill** 

**APD** Evaluator

4/9/2008

Date / Time

#### Surface Statement of Basis

The general area is in the Bitter Creek Gas Field in the southeast end of the Natural Buttes Unit. This area contains the lower Bitter Creek drainage, the White River and short rugged drainages that drain into the White River. Topography is varied consisting of narrow ridge tops, frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages including Bitter Creek, which joins the White River in this area, are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 39 air miles to the northwest. Access from Ouray, Utah is approximately 27.2 road miles following Utah State, Uintah County and oilfield development roads to the location. A new road 0.3 miles in length will be constructed to the proposed pad.

The proposed NBU 1022-02D gas well is on a south-north trending ridge top that ends overlooking the White River on the north. The ridge is somewhat flat with a slight slope to the north. It slopes off steeply on all sides except the south. The distance from the wellhead to the reserve pit will be reduced from 58 to 40 feet to accommodate the smaller rig, which will drill this well. Because the location is elevated in rough terrain above the White River a double 20-mil liner and an appropriate thickness of sub felt to cushion all rock is required for the reserve pit. The White river is about ¼ mile to the north dropping about 500 vertical feet to the river corridor. No drainages intersect the location and no diversions are needed. This appears to be a suitable location for constructing a pad, drilling and operating a well and is the only suitable site in the immediate area.

When the well is completed the storage tanks may be in view for a short distance along the river bottom. Ed Bonner of SITLA said this would be acceptable.

Both the surface and minerals for this location are owned by SITLA. Ed Bonner of SITLA attended the pre-site visit and expressed no concerns regarding the proposed location except for those discussed above.

Ben Williams represented the UDWR at the pre-site visit. He explained that the area is classified as yearlong critical habitat for antelope. He stated the lack of water not forage is the limiting factor affecting the herd in the area. The area along the river corridor is also classified as crucial yearlong range for deer. He did not recommend any restrictions for either species. No other wildlife is expected to be significantly affected. He

# **Application for Permit to Drill Statement of Basis**

Utah Division of Oil, Gas and Mining

Page 2

gave Ed Bonner of SITLA and Rayleen White of Kerr McGee a copy of his wildlife evaluation and a UDWR recommended seed mix to be used when re-vegetating the location.

The following statement by the UDWR was previously provided for consideration in approving Permits to Drill in the White River area. "The White River in Utah is home to one of the more intact native fish assemblages in the Colorado River basin. We regularly see large adult Colorado pikeminnow (Ptychocheilus lucius) and all age/size classes of flannelmouth sucker (Catostomus latipinnis), bluehead sucker (Catostomus discobolus), and roundtail chub (Gila robusta). The pikeminnow is an endangered species covered under the ESA and managed through activities funded by the Upper Colorado River Endangered Fish Recovery Program. The remaining three species are state sensitive species covered under a Range-wide Conservation Agreement and Strategy signed by six states and numerous federal and tribal agencies and a State Management Plan for the three species also signed by state, federal, and tribal agencies. We have planned many conservation actions for the three species around the state; however, we have not worried about the White River populations as much because we still see all life stages here. If development is allowed without mitigation for potential impacts to these species, we could see a disruption in this population like we've seen in other streams and rivers across the state. Spills and/or leaks may impact these fish by a number of means, from simply causing a fish kill and harming all individuals that cannot escape the spill to interruption of spawning cues (meaning they may go one or more years depending on the severity of the spill without spawning.

Floyd Bartlett

4/1/2008

**Onsite Evaluator** 

Date / Time

#### Conditions of Approval / Application for Permit to Drill

Category

Condition

**Pits** 

4/9/2008

A double synthetic liner each with a minimum thickness of 20 mils and an appropriate

thickness of felt sub-liner to cushion the liners shall be properly installed and

maintained in the reserve pit.

Surface

The reserve pit shall be fenced upon completion of drilling operations.

#### Utah Division of Oil, Gas and Mining

**Operator** 

KERR-MCGEE OIL & GAS ONSHO

Well Name

NBU 1022-02D

**API Number** 

43-047-39955-0

**APD No** 701

10S

Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NWNW

Sec 2

Rng 22E

1090 FNL 990 FWL

**GPS Coord (UTM)** 635554

4426791

**Surface Owner** 

#### **Participants**

Floyd Bartlett (DOGM), Ed Bonner (SITLA), Rayleen White, Kevin McIntyre, Rammie Hoops and Tony Kzneck (Kerr McGee) and David Kay (Uintah Engineering and Land Surveying), Ben Williams (UDWR).

#### Regional/Local Setting & Topography

The general area is in the Bitter Creek Gas Field in the southeast end of the Natural Buttes Unit. This area contains the lower Bitter Creek drainage, the White River and short rugged drainages that drain into the White River. Topography is varied consisting of narrow ridge tops, frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages including Bitter Creek, which joins the White River in this area, are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 39 air miles to the northwest. Access from Ouray, Utah is approximately 27.2 road miles following Utah State, Uintah County and oilfield development roads to the location. A new road 0.3 miles in length will be constructed to the proposed pad.

The proposed NBU 1022-02D gas well is on a south-north trending ridge top that ends overlooking the White River on the north. The ridge is somewhat flat with a slight slope to the north. It slopes off steeply on all sides except the south. The distance from the wellhead to the reserve pit will be reduced from 58 to 40 feet to accommodate the smaller rig, which will drill this well. Because the location is elevated in rough terrain above the White River a double 20-mil liner and an appropriate thickness of sub felt to cushion all rock is required for the reserve pit. The White river is about ¼ mile to the north dropping about 500 vertical feet to the river corridor. No drainages intersect the location and no diversions are needed. This appears to be a suitable location for constructing a pad, drilling and operating a well and is the only suitable site in the immediate area.

Both the surface and minerals for this location are owned by SITLA.

#### Surface Use Plan

**Current Surface Use** 

Grazing

Recreational

Wildlfe Habitat

Deer Winter Range

New Road

Miles V

Well Pad

Src Const Material

**Surface Formation** 

0.03

Width 260

Length 350

Onsite

UNTA

Ancillary Facilities N

#### Waste Management Plan Adequate?

#### **Environmental Parameters**

Affected Floodplains and/or Wetland N

#### Flora / Fauna

Vegetation in the area includes cheatgrass, shadscale, bud sage, black sage, Gardner saltbrush, prickly pear and spring annuals.

Deer, antelope, coyote, rabbits and other small mammals inhabit the area. Cattle may occasionally graze in the area. Various avian species are expected. No raptors are recorded in the UDWR data base in the surrounding area.

#### Soil Type and Characteristics

Surface soils are a moderately deep rocky sandy loam.

**Erosion Issues** N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required N

Berm Required? N

**Erosion Sedimentation Control Required?** N

Paleo Survey Run? N Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

#### Reserve Pit

Site-Specific Factors		Site F	Ranking	
Distance to Groundwater (feet)	>200		0	
Distance to Surface Water (feet)	>1000		0	
Dist. Nearest Municipal Well (ft)	>5280		0	
Distance to Other Wells (feet)	300 to 1320		10	
Native Soil Type	Mod permeability		10	
Fluid Type	Fresh Water		5	
Drill Cuttings	Normal Rock		0	
<b>Annual Precipitation (inches)</b>	<10		0	
Affected Populations	<10		0	
Presence Nearby Utility Conduits	Not Present		0	
	!	Final Score	25	1 Sensitivity Level

#### Characteristics / Requirements

Pit size is 70' x 150' x 10' deep. It is located in cut in the southwest corner of the location. A 15-foot wide bench will be constructed around the exterior of the pit.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 40 Pit Underlayment Required? Y

#### **Other Observations / Comments**

Floyd Bartlett 4/1/2008
Evaluator Date / Time

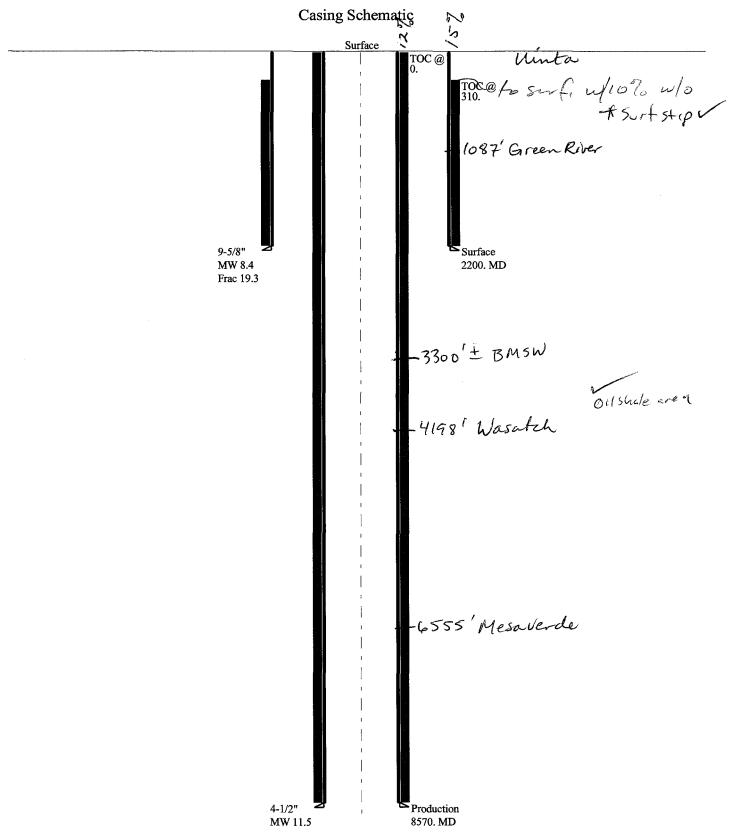
### **BOPE REVIEW**

## Kerr-McGee NBU 1022-02D API 43-047-39955

INPUT				
Well Name	Kerr-McGee NBU 1	022-02D API 43-047	-39955	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	String 1	String 2		
Casing Size (")	9 5/8	4 1/2		
Setting Depth (TVD)	2200	8200		
Previous Shoe Setting Depth (TVD)	0	2000		
Max Mud Weight (ppg)	8.4	11.5		
BOPE Proposed (psi)	500	5000		The state of
Casing Internal Yield (psi)	3520	7780		
Operators Max Anticipated Pressure (psi)	5313	12.5	ppg	

Calculations	String 1	9 5/8 "	
Max BHP [psi]	.052*Setting Depth*MW =	961	
		BOPE Adeq	uate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	697 NO	Air Drill to surface shoe
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	477 YES	
,		*Can Full Ex	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting Depth - Previous Shoe Depth) =	477 NO	- No press or -
Required Casing/BOPE Test	Pressure	2200 psi	
*Max Pressure Allowed @ Pi	revious Casing Shoe =	0 psi	

Calculations	String 2	4 1/2	**	
Max BHP [psi]	.052*Setting Depth*MW =	4904		
			<b>BOPE Adequate</b>	For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	3920	YES	
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	3100	YES 🗸	
			*Can Full Expect	ed Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe   Max B	HP22*(Setting Depth - Previous Shoe Depth) =	3540	NO R	eason a b C
Required Casing/BOPE Test Pressu	re	5000	psi /	
*Max Pressure Allowed @ Previous Casing Shoe =			psi	*Assumes 1psi/ft frac gradient
			A CONTRACTOR OF THE PARTY OF TH	



Well name:

2008-04 Kerr McGee NBU 1022-02D

Operator:

Kerr McGee Oil & Gas Onshore L.P.

String type:

Surface

Project ID:

43-047-39955

Location:

Uintah County, Utah

Minimum design factors: **Environment:** 

Collapse

Mud weight: 8.400 ppg Design is based on evacuated pipe.

Collapse: Design factor

1.125

H2S considered?

No 75 °F Surface temperature: Bottom hole temperature: 106 °F Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,300 ft

**Burst:** 

Design factor

1.00 Cement top: 310 ft

**Burst** 

Max anticipated surface

No backup mud specified.

pressure:

**Design parameters:** 

1,936 psi

Internal gradient: Calculated BHP

0.120 psi/ft

2,200 psi

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) 1.60 (J) **Buttress:** 

Premium: Body yield:

Neutral point:

1.50 (J) 1.50 (B)

Tension is based on buoyed weight.

1,926 ft

Re subsequent strings:

Next setting depth: Next mud weight:

Non-directional string.

8,570 ft 11.500 ppg 5,120 psi

Next setting BHP: Fracture mud wt: Fracture depth: Injection pressure:

19.250 ppg 2,200 ft 2,200 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2200	9.625	36.00	J-55	LT&C	2200	2200	8.796	954.9
Run Seq	Collapse Load	Collapse Strength	Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(Kips)	(Kips)	Factor
1	960	2020	2.104	2200	3520	1.60	69	453	6.53 J

Prepared

by:

Helen Sadik-Macdonald Div of Oil, Gas & Minerals Phone: (801) 538-5357 FAX: (801) 359-3940

Date: April 16,2008 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2200 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

2008-04 Kerr McGee NBU 1022-02D

Operator:

Kerr McGee Oil & Gas Onshore L.P.

String type:

Production

Project ID:

43-047-39955

Location:

Uintah County, Utah

**Design parameters:** 

Collapse

Mud weight:

11.500 ppg

Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor

1.125

**Environment:** H2S considered?

No Surface temperature: 75 °F

Bottom hole temperature: 195 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Non-directional string.

Burst:

Design factor

1.00

Cement top:

Surface

**Burst** 

Max anticipated surface

pressure:

3,234 psi

Internal gradient: Calculated BHP

0.220 psi/ft 5,120 psi

No backup mud specified.

Tension:

8 Round STC:

**Buttress:** 

Premium:

Body yield:

8 Round LTC:

1.60 (J) 1.50 (J)

1.50 (B)

1.80 (J)

1.80 (J)

Tension is based on buoyed weight.

Neutral point:

7,097 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	8570	4.5	11.60	I-80	LT&C	8570	8570	3.875	747.9
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5120	6360	1.242	5120	7780	1.52	82	212	2.58 J

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Minerals

Phone: (801) 538-5357

FAX: (801) 359-3940

Date: April 16,2008 Salt Lake City, Utah

Collapse is based on a vertical depth of 8570 ft, a mud weight of 11.5 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

From:

Jim Davis

To:

Bonner, Ed; Garrison, LaVonne; Mason, Diana

Date:

10/30/2008 9:19 AM

Subject:

Well approvals

The following wells have been approved by SITLA, including arch and place clearance.

Kerr McGEE	43-04/-39954	NBU 1022-02F
Kerr McGEE	43-047-39955	NBU 1022-02D
Kerr McGEE	43-047-39959	NBU 1022-13H
Newfield Prod Co	43-013-34005	State 9-32T-8-17
Newfield Prod Co	43-047-40160	State 13-36T-8-17
Newfield Prod Co	43-047-40161	State 16-2T-9-17
Newfield Prod Co	43-013-34006	State 11-2T-9-17

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156



Lieutenant Governor



MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

November 4, 2008

Kerr-McGee Oil & Gas Onshore, LP 1099 18th St., #1200 Denver, CO 80202

Re: NBU 1022-02D Well, 1090' FNL, 990' FWL, NW NW, Sec. 2, T. 10 South, R. 22 East,

Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39955.

Sincerely,

Highet

Gil Hunt

**Associate Director** 

pab Enclosures

cc:

Uintah County Assessor

Bureau of Land Management, Vernal Field Office

**SITLA** 



Operator:	Kerr-McGee Oil & Gas Onshore, LP					
Well Name & Number	NBU 1022-02D 43-047-39955					
API Number:						
Lease:	ML-22651					
Location: NW NW	Sec. 2 T. 10 South R. 22 E	ast				

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to spudding the well contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well contact Dustin Doucet
- Any changes to the approved drilling plan contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

• Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home

• Carol Daniels at: (801) 538-5284 office

• Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Page 2 43-047-39955 November 4, 2008

- 4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
- 5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
- 6. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.
- 7. Surface casing shall be cemented to the surface.

## DIVISION OF OIL, GAS AND MINING

### **SPUDDING INFORMATION**

Name of Con	npany:	KERR-McGEE	OIL & GA	S ONSHORE	, L.P.
Well Name:		NBU 102	2-02D		
Api No:	43-047-3	9955	Lease	e Type: ST	ATE
Section 02	Township_	10S Range	22E	County <u>UIN</u>	VTAH
Drilling Cont	tractor	PETE MAR	TIN DRLC	GRIG#_	BUCKET
SPUDDE	<b>)</b> :				
	Date	01/17/2009			
	Time	8:00 AM			
	How	DRY			
Drilling wil	I Comme	ence:	<u> </u>		
Reported by		LEW W	ELDON_		
Telephone #_		(435) 8	28-7035		
Date	01/20/2009	Signed	CHD		

### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

# DIVISION OF OIL, GAS AND MINING

#### **ENTITY ACTION FORM**

zip 84078

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

1368 SOUTH 1200 EAST

city VERNAL

state UT

Phone Number: (435) 781-7024

Well 1

10000				Sec	Twp	Rng	County			
4304739954	NBU 1022-02F		SENW	SENW 2 10S Spud Date			22E UINTAH			
Action Code	Current Entity Number	New Entity Number	s				Entity Assignment Effective Date			
В	3 99999 3900		1	/18/200	9	1/39/09				

Well 2

API Number	Well	QQ	Sec	Twp	Rng	County		
4304739955	NBU 1022-02D		NWNW	2	105	22E	UINTAH	
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date		
B	99999	2900	1.	/17/200	9	1/39/09		
Comments:		WSMVD						

Well 3

API Number	Well	lame	QQ	Sec	Twp	Rng County			
Action Code	Current Entity Number	New Entity Number		Spud Date			Entity Assignment Effective Date		
omments:									

#### **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- Re-assign well from one existing entity to another existing entity
- Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

SHEILA UPCHEGO

Title

Signature **REGULATORY ANALYST** 

(5/2000)

RECEIVED JAN 2 0 2009

DIV. OF OIL, GAS & MINING

FORM 9 STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL. GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22651 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: SUNDRY NOTICES AND REPORTS ON WELLS 7 UNIT or CA AGREEMENT NAME: Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. UNIT #891008900A 8. WELL NAME and NUMBER: 1. TYPE OF WELL GAS WELL 🔽 OTHER OIL WELL NBU 1022-02D 2. NAME OF OPERATOR: 9. API NUMBER: 4304739955 KERR McGEE OIL & GAS ONSHORE LP 10. FIELD AND POOL, OR WILDCAT: 3. ADDRESS OF OPERATOR: PHONE NUMBER: STATE UT NATURAL BUTTES 1368 SOUTH 1200 EAST <sub>20</sub> 84078 (435) 781-7024 4. LOCATION OF WELL FOOTAGES AT SURFACE: 1090'FNL, 990'FWL COUNTY: UINTAH QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 2 10S 22E STATE: UTAH CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 11. TYPE OF SUBMISSION TYPE OF ACTION DEEPEN REPERFORATE CURRENT FORMATION ACIDIZE NOTICE OF INTENT (Submit in Duplicate) ALTER CASING FRACTURE TREAT SIDETRACK TO REPAIR WELL Approximate date work will start: CASING REPAIR NEW CONSTRUCTION TEMPORARILY ABANDON CHANGE TO PREVIOUS PLANS OPERATOR CHANGE TUBING REPAIR CHANGE TUBING PLUG AND ABANDON VENT OR FLARE SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK WATER DISPOSAL (Submit Original Form Only) WATER SHUT-OFF CHANGE WELL STATUS PRODUCTION (START/RESUME) Date of work completion: COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE OTHER: SET SURFACE CSG CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PROPETRO AIR RIG ON 01/26/2009. DRILLED 12 1/4" SURFACE HOLE TO 2270'. RAN 9 5/8" 36# J-55 SURFACE CSG. LEAD CMT W/350 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DISPLACE W/169 BBLS OF H2O 300 PSI LIFT BUMP PLUG 800 PSI FLOAT HELD. TOP OUT W/100 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACKSIDE. 2ND TOP OUT W/225 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACK SIDE GOOD CMT TO SURFACE HOLE STAYED FULL. WORT

SIGNATURE \_\_\_\_\_

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NAME (PLEASE PRINT)

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**REGULATORY ANALYST** 

2/9/2009

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22651 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: SUNDRY NOTICES AND REPORTS ON WELLS 7. UNIT or CA AGREEMENT NAME: Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. UNIT #891008900A 8. WELL NAME and NUMBER: 1. TYPE OF WELL OIL WELL GAS WELL 🗸 OTHER NBU 1022-02D 9. API NUMBER: 2. NAME OF OPERATOR: 4304739955 KERR McGEE OIL & GAS ONSHORE LP PHONE NUMBER: 10. FIELD AND POOL, OR WILDCAT: 3. ADDRESS OF OPERATOR: CITY VERNAL NATURAL BUTTES STATE UT ZIP 84078 (435) 781-7024 1368 SOUTH 1200 EAST 4. LOCATION OF WELL COUNTY: UINTAH FOOTAGES AT SURFACE: 1090'FNL, 990'FWL 10S 22E QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 2 STATE: UTAH CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 11. TYPE OF SUBMISSION TYPE OF ACTION ACIDIZE DEEPEN REPERFORATE CURRENT FORMATION NOTICE OF INTENT (Submit in Duplicate) FRACTURE TREAT SIDETRACK TO REPAIR WELL ALTER CASING Approximate date work will start: CASING REPAIR NEW CONSTRUCTION TEMPORARILY ABANDON TUBING REPAIR CHANGE TO PREVIOUS PLANS OPERATOR CHANGE CHANGE TUBING PLUG AND ABANDON VENT OR FLARE SUBSEQUENT REPORT WATER DISPOSAL CHANGE WELL NAME PLUG BACK (Submit Original Form Only) PRODUCTION (START/RESUME) WATER SHUT-OFF CHANGE WELL STATUS Date of work completion: COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE OTHER: FINAL DRILLING **OPERATIONS** RECOMPLETE - DIFFERENT FORMATION CONVERT WELL TYPE DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. FINISHED DRILLING FROM 2270' TO 8740' ON 03/02/2009. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. LEAD CMT W/385 SX PREM LITE II @11.4 PPG 2.95 YIELD. TAILED CMT W/1200 SX 50/50 POZ @14.3 PPG 1.31 YIELD. DROP PLUG AND DISPLACE W/135.1 BBLS OF CLAYTREAT WATER W/MAGNACIDE 10 BBLS OF LEAD TO SURFACE 2380 PSI OF LIFT BUMP PLUG 2850 FLOATS HELD. WASH OUT STACK NIPPLE DOWN ST WELL HEAD PACKING AND TEST TO 5000 PSI INSTALL NIGHT CAP. CLEAN PITS. RELEASED PIONEER RIG 69 ON 03/04/2009 AT 0230 HRS.

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NAME (PLEASE PRINT)

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REGULATORY ANALYST

3/4/2009

	STATE OF UTAH		FORM 9	
	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22651	
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-02D			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS		9. API NUMBER: 43047399550000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1090 FNL 0990 FWL QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 02	COUNTY: UINTAH  STATE: UTAH			
11.				
CHE	CK APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
THE SUBJECT WELL V	CHANGE TO PREVIOUS PLANS     CHANGE WELL STATUS     DEEPEN     OPERATOR CHANGE     ✓ PRODUCTION START OR RESUME     REPERFORATE CURRENT FORMATION     TUBING REPAIR     WATER SHUTOFF     WILDCAT WELL DETERMINATION  DMPLETED OPERATIONS. Clearly show all per VAS PLACED ON PRODUCTIONS TO THE ATTACHED CHRONO	N ON 10/16/2009 AT 12:45 DLOGICAL WELL HISTORY. <b>A</b> U Oil	·	
NAME (DI EAST PRINT)	BHONE NUMBER	Trees		
NAME (PLEASE PRINT) Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	R TITLE Regulatory Analyst		
SIGNATURE N/A		<b>DATE</b> 10/19/2009		

## **Operation Summary Report**

 Well: NBU 1022-02D
 Spud Conductor: 1/17/2009
 Spud Date: 1/26/2009

 Project: UTAH-UINTAH
 Site: NBU 1022-02D
 Rig Name No: PROPETRO/, PIONEER 68/68

Event: DRILLING Start Date: 1/26/2009 End Date: 3/4/2009

Active Datum: RKB @4,993.00ft (above Mean Sea UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0

Level)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
1/26/2009	0:30 - 12:00	11.50	DRLSUR	02		Р		AIR SPUD 00:30 1/26/2009 DRILL F/ 40' TO 750'. WITH AIR HAMMER. NO WATER.
	12:00 - 0:00	12.00	DRLSUR	02		Р		DRILL F 750' TO 1110' W/ AIR HAMMER (NO WATER)
1/27/2009	0:00 - 12:00	12.00	DRLSUR	02		Р		DRILL F/ 1110' TO 1440' BIT TRIP @ 1380' NO WATER
	12:00 - 0:00	12.00	DRLSUR	02		Р		DRILL F/ 1440' TO 1530' WATER @ 1470' SURVEY @1530'= 1 DEGREE
1/28/2009	0:00 - 5:30	5.50	DRLSUR	02		Р		DRILL F/ 1530' TO 1650'. CIRC W/ SKID PUMP.
	5:30 - 0:00	18.50	DRLSUR	19	Α	Р		PUMP PROBLEMS. STUCK PIPE. REGAIN CIRC. BUT WAS STILL UNABLE TO UNSTICK PIPE. FREE POINT. FREE TO BIT. BACK OUT 1 COLLAR ABOVE BIT. TRIP OUT AND PICK UP WASH PIPE. TRIP DOWN. UNABLE TO GET DOWN TO FISH.
1/29/2009	0:00 - 6:00	6.00	DRLSUR	19	Α	Z		TRIP IN HOLE W/ WASH PIPE, WASH PIPE WOULD NOT WASH DOWN 100' ABOVE FISH. TRIP OUT W/ WASH PIPE.
	6:00 - 12:00	6.00	DRLSUR	19	Α	Z		TRIP OUT W/ WASH PIPE, AND PICK UP 12 1/4 TRI-CONE AND WASH TO TOP OF FISH, TRIP OUT W/ TRICONE
	12:00 - 18:00	6.00	DRLSUR	19	Α	Z		TRIP OUT OF HOLE, P/U 60' WASH PIPE AND TRIP IN, BRIDGE OUT 40' ABOVE FISH, START WASHING DOWN TO FISH.
	18:00 - 0:00	6.00	DRLSUR	19	Α	Z		WASH DOWN TO FISH AND OVER FISH.
1/30/2009	0:00 - 6:00	6.00	DRLSUR	19	Α	Z		WASH OVER FISH, TRIP OUT OF HOLE W/ WASH PIPE. LD WASH PIPE.
	6:00 - 12:00	6.00	DRLSUR	19	Α	Z		P/U OVERSHOT AND TRIP IN HOLE, CATCH FISH.
	12:00 - 18:00	6.00	DRLSUR	19	Α	Z		TRIP OUT OF HOLE W/ FISH, LD FISH, AND FISHING TOOLS.
	18:00 - 0:00	6.00	DRLSUR	02		Р		DRILL F/ 1650' TO 1710'. PUMP W/ SKID PUMP TO CONTROL WATER GAIN.
1/31/2009	0:00 - 12:00	12.00	DRLSUR	02		₽		DRILL F/ 1710' TO 1950' CIRC W/ SKID PUMP
	12:00 - 0:00	12.00	DRLSUR	02		Р		DRILL F/ 1950' TO 2160' SURVEY 2010'= 2 1/2 DEGREES. REDUCE WT ON BIT. CIRC W/ SKID PUMP
2/1/2009	0:00 - 8:00	8.00	DRLSUR	02		Р		DRILL F/ 2160' TO 2270' TD 08:00 2/1/2009 SURVEY 2270'= 1.5 DEGREES
	8:00 - 12:00	4.00	DRLSUR	06		P		CIRC AND CLEAN HOLE, LDDS.
	12:00 - 17:00	5.00	DRLSUR	12		Р		RUN 52 JTS OF 9-5/8" OF 36#, J-55, LT&C TO THE DEPTH 2231.9'
	17:00 - 18:30	1.50	DRLSUR	12		P		PUMP 350 SX (72 BBLS) 2% CAL 15.8#, 1.15 YD, 5 GAL/SX TAIL CEMENT. DISPLACE W/ 169 BBLS OF H20, 300 PSI LIFT. BUMP PLUG 800 PSI. FLOAT HELD.
	18:30 - 20:30	2.00	DRLSUR	12		Р		TOP #1 PUMP 100 SX (20 BBLS) SX 4% CAL 15.8#, 1.15 YD, 5 GAL/SX DOWN BACK SIDE
	20:30 - 21:00	0.50	DRLSUR	12		Р		TOP#2 PUMP 225 SX (46 BBLS) SX 2% CAL 15.8#, 1.15 YD, 5 GAL/SX DOWN BACKSIDE CEMENT TO SURFACE AND STAYED.
2/22/2009	13:00 - 0:00	11.00	RDMO	01	E	Р		RIG DOWN RIG AND READY FOR RIG MOVE. RIG MOVE IS 1/2 MILE NORTH.
2/23/2009	0:00 - 7:00	7.00	RDMO	01	E	Р		RIG DOWN RIG AND READY FOR TRUCK.

10/19/2009 12:07:51PM

## **Operation Summary Report**

Spud Conductor: 1/17/2009 Spud Date: 1/26/2009 Well: NBU 1022-02D Project: UTAH-UINTAH Site: NBU 1022-02D Rig Name No: PROPETRO/, PIONEER 68/68 Event: DRILLING Start Date: 1/26/2009 End Date: 3/4/2009

Event: DRILLII	NG		Start Dat	e: 1/26/	2009		End Date: 3/4/2009			
Active Datum: Level)	RKB @4,993.00ft (a	above Mea	n Sea	UWI: 0	/10/S/22	/E/2/0/NV	VNW/6/PM/N/	0,090.00/W/0/990.00/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Cperation:		
	7:00 - 11:00	4.00	RDMO	01	Α	P		HOLD SAFETY MEETING W/ L&S TRUCKING, J C CRANE, AND PIONEER DRILLING ABOUT MOVING RIG. BRUCE TAYLOR SAFETY HAND ATTENDED. TEAR DOWN RIG AND MOVE RIG 1/2 MILE TO LOCATION 7 TRUCKS. 3 SWAMPERS, 1 TRUCK PUSHER, 2 FORKLIFTS, 1 CRANE OPERATOR, 3 CRANE SWAMPERS. 6 HANDS, 1 TOOL PUSHER.		
	11:00 - 15:00	4.00	MIRU	01	В	P		MOVE IN AND RIG UP RIG. SPOT ENTIRE RIG. @ 13:00 HELD SAFETY MEETING W/ MOUNTAIN WEST. AND MOUNTAIN WEST STARTED MOVING CAMPS. TRUCKS RELEASE @ 15:00. MOUNTAIN WEST RELEASED @ 16:00. JC CRANE RELEASE @ 16:00. HALF MASS DERRICK AND RAISE SUB		
	15:00 - 0:00	9.00	MIRU	01	В	Р		RAISE DERRICK AND RIG UP RIG. RIG 90 % RIGGED UP.		
2/24/2009	0:00 - 1:00	1.00	MIRU	01	В	Р		RIG UP RIG.		
	1:00 - 5:30	4.50	DRLPRO	14	Α	Р		INSTALL FMC LOCKDOWN FLANGE AND TEST TO 5,000 PSI, NIPPLE UP BOP, NIPPLE UP CHOKE LINE. NIPPLE UP KILL LINE, NIPPLE UP ROT HEAD AND FLOW LINE. HOOK UP HYDRALICS ANF FUNCTION TEST BOP'S. INSTALL FLARE LINES.		
	5:30 - 10:30	5.00	DRLPRO	15	А	Р		HOLD SAFETY MEETING W/ SINGLE JACK TESTING. TEST BLIND, PIPE, UPPER AND LOWER KELLY VALVE, DART VALVE, FLOOR VALVE INSIDE OUTSIDE BOP VALVES, AND CHOKE MANIFOLD TO 5000 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST ANNULLAR TO 2500 PSI FOR 15 MIN AND 250 TEST FOR 5 MIN. TEST CSG TO 1500 PSI FOR 30 MIN. RUN WEAR BUSHIN. PERFORM ACCUM. FUNCTION TEST.		
	10:30 - 12:30	2.00	DRLPRO	09	Α	P		SLIP AND CUT DRILL LINE.		
	12:30 - 18:00	5.50	DRLPRO	06	Α	P		HOLD SAFETY MEETING W/ KIMZEY LAYDOWN CREW. RIG UP KIMZEY LAYDOWN TRUCK AND P/U BHA. TAG CEMENT 2140'. RIG DOWN KIMZEY CSG.		
	18:00 - 19:00	1.00	DRLPRO	14	В	Р		INSTALL ROT. RUBBER, CHECK GAS BUSTER AND MUD LINE FOR LEAKS, PERFORM PRESPUD INSPECTION.		
	19:00 - 20:30	1.50	DRLPRO	02	F	Р		DRILL CEMENT FROM 2140' TO 2288'. FLOAT 2208', SHOE @ 2253'		
	20:30 - 0:00	3.50	DRLPRO	02	В			DRILL 2288'-2691' (403', 115'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1360/1050 DIFF 300, P/U-SO-ROT= 90,80,86 MW 8.3 VIS 27		
2/25/2009	0:00 - 4:30	4.50	DRLPRO	02	В	Р		DRILL 2691'- 3194' (503', 111'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1360/1050 DIFF 300, P/U-SO-ROT= 90,80,86 MW 8.3 VIS 27		
	4:30 - 5:00	0.50	DRLPRO	10	D	P		SURVEY W/ MWD. 3156'= 1.8 DEGREES AZI 1.8		
	5:00 - 15:00	10.00	DRLPRO	02	В	P		DRILL 3194' - 4400' (1206', 121'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1500/1200 DIFF 300, P/U-SO-ROT= 122-114-119 MW 8.7 VIS 32		
	15:00 - 15:30	0.50	DRLPRO	07	Α	Р		RIG SERVICE, FUNCTION BOP'S		
	15:30 - 0:00	8.50	DRLPRO	02	В	P		DRILL 4400' -5257' (857', 101'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1600/1300 DIFF 300, P/U-SO-ROT= 135-120-130 MW 8.3 VIS 27 NO LOSSES.		

10/19/2009 12:07:51PM

# RECEIVED October 19, 2009

## US ROCKIES REGION

## **Operation Summary Report**

 Well: NBU 1022-02D
 Spud Conductor: 1/17/2009
 Spud Date: 1/26/2009

 Project: UTAH-UINTAH
 Site: NBU 1022-02D
 Rig Name No: PROPETRO/, PIONEER 68/68

 Event: DRILLING
 Start Date: 1/26/2009
 End Date: 3/4/2009

_evel)	RKB @4,993.00ft	`						1,090.00/W/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	PIU	MD From (ft)	Operation
2/26/2009	0:00 - 13:30	13.50	DRLPRO	02	В	Р		DRILL 5257'- 6109' (852', 63'/HR) WOB 18-20, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1750/1450 DIFF 300, P/U-SO-ROT= 150-138-144 MW 9.5 VIS 36 NO LOSSES.
	13:30 - 14:00	0.50	DRLPRO	07	Α	Р		RIG SERVICE. FUNCTION BOP'S.
	14:00 - 16:00	2.00	DRLPRO	02	В	Р		DRILL 6109'- 6158' (49', 24.5'/HR) WOB 20-28, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1750/1500 DIFF 300, P/U-SO-ROT= 151-140-146 MW 9.5 VIS 36 NO LOSSES.
	16:30 - 16:30 0.50			05	С	Р		TRANSFER 40 BBLS OF 11.5 MUD AND PUMP FOR DRY JOB.
	16:30 - 17:30	1.00	DRLPRO	06	Α	Р		TRIP OUT OF HOLE. TIGHT HOLE 5120'. TRY T WORK TIGHT HOLE. NO GO.
	17:30 - 18:30	1.00	DRLPRO	03	Α	X		KELLY UP, BACK REAM THROUGH TIGHT HOLE 5120' TO 5140', CIRC. AND CLEAN OF IBS. PUMP 40 MORE BBLS OF 11.5 MUD FOR DRY JOB.
	18:30 - 21:30	3.00	DRLPRO	06	Α	Р		TRIP OUT OF HOLE. NO MORE TIGHT HOLE. LD IBS. CHECK MWD, CHECK FLOAT. CHECK MOTOR. ALL OK. INSPECT BIT #1.
	21:30 - 0:00	2.50	DRLPRO	06	Α	Р		MAKE UP BIT #2 FMHX 545 ZM, FILL PIPE COLLARS W/ WATER ON TRIP IN, BREAK CIRC @ 2300' TRIP IN HOLE
2/27/2009	0:00 - 2:00	2.00	DRLPRO	06	Α	Р		TRIP IN HOLE W/ BIT #2, NO TIGHT HOLE, NO LOSSES, NO GAIN. NO FILL.
	2:00 - 13:30 11.50	11.50	DRLPRO	02	В	Р		DRILL 6158'-6735' (577', 50'/HR) WOB 15-18, SPM 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1800/1550 DIFF 250, P/U-SO-ROT= 156-130-148 MW 9.8 VIS 38 NO LOSSES.
	13:30 - 14:00	0.50	DRLPRO	07	Α	Р		RIG SERVICE, FUNCTION BOP'S
	14:00 - 0:00	10.00	DRLPRO	02	В	Р		DRILL 6735'-7202' (467', 47'/HR) WOB 18-20, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1840/1590 DIFF 250, P/U-SO-ROT= 163-148-158 MW 10.2 VIS 37 NO LOSSES.
2/28/2009	0:00 - 2:30	2.50	DRLPRO	02	В	Р		DRILL 7202'- 7305' (103',41'/HR) WOB 20, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1950/1700 DIFF 250, P/U-SO-ROT= 158-132-150 MW 10.3 VIS 38 NO LOSSES.
	2:30 - 3:00	0.50	DRLPRO	10	Α	Р		SURVEYS.
	3:00 - 14:00	11.00	DRLPRO	02	В	P		DRILL 7305'-7716' (411',37'/HR) WOB 22, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2000/1750 DIFF 250, P/U-SO-ROT= 170-157-167 MW 10.7 VIS 38 NO LOSSES.
	14:00 - 14:30		DRLPRO	07	A	P -		RIG SERVICE. FUNCTION BOP'S
	14:30 - 21:30		DRLPRO	02	В	Р		DRILL 7716'-7920' (204',29'/HR) WOB 24, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2050/1800 DIFF 250, P/U-SO-ROT= 175-155-168 MW 10.8 VIS 38 NO LOSSES.
	21:30 - 22:00		DRLPRO	05	C	P		MIX UP 50 BBLS 12.3# PILL AND PUMP.
01110	22:00 - 0:00	2.00	DRLPRO	06	A	P		TRIP OUT OF HOLE FOR BIT #2, TIGHT SPOT 6200'. TRIP OUT.
3/1/2009	0:00 - 3:30	3.50	DRLPRO	06	Α	Р		TRIP OUT OF HOLE FOR BIT #2, LD DRILLING JARS, TRIP OUT. CHECK MOTOR, EVALUATE BIT #2.
	3:30 - 8:30	5.00	DRLPRO	06	Α	Р		MAKE UP BIT #3 TRIP IN HOLE. FILL PIPE @ 2300'. TRIP TO BOTTOM. NO TIGHT HOLE. NO FILL.
	8:30 - 17:30	9.00	DRLPRO	02	В	Р		DRILL 7920'-8421' (501', 56'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2100/1850 DIFF 250, P/U-SO-ROT= 181-163-174 MW 11 VIS 42 NO LOSSES.

10/19/2009 12:07:51PM

## **Operation Summary Report**

Spud Date: 1/26/2009 Spud Conductor: 1/17/2009 Well: NBU 1022-02D Project: UTAH-UINTAH Site: NBU 1022-02D Rig Name No: PROPETRO/, PIONEER 68/68 End Date: 3/4/2009 Event: DRILLING Start Date: 1/26/2009

	Time	_evel)  Date Time Duration Phe		Code	Sub	P/U	MD From	Operation		
Date	Start-End	(hr)	FILESO	Cona	Code	· ·	(ft)			
<u> </u>	17:30 - 18:30	1.00	DRLPRO	07	Α	Р		RIG SERVICE, CHANGE OUT ROT HEAD RUBBER.		
	18:30 - 0:00	5.50	DRLPRO	02	В	Р		DRILL 8421-8667' (246,45'/HR) TD EXTENDED TO 8740 AS NEEDED BY GEOLOGIST. WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2200/1950 DIFF 250, P/U-SO-ROT= 184-167-178 MW 11.6 VIS 42 NO LOSSES.		
3/2/2009	0:00 - 2:00	2.00	DRLPRO	02	В	Р		DRILL 8667'-8740' (73', 37'/HR) WOB 15-18, SPM: 125, GPM=473, MOTOR RPM=76, SPP ON/OFF, 2250/2000 DIFF 250, P/U-SO-ROT= 185-165-175 MW 11.7 VIS 42 NO LOSSES. 5-10' FLARES ON CONNECTIONS.		
	2:00 - 3:00	1.00	EVALPR	05	С	Р		CIRC. BOTTOMS UP. MIX 40 BBLS 12.7# DRY JOB. PUMP.		
	3:00 - 4:30	1.50	EVALPR	06	Ε	Р		SHORT TRIP TO 7800', NO FLOW DURING TRIP.		
	4:30 - 6:30	2.00	EVALPR	05	Α	Р		CONDITION MUD. 25'-30' FLARE BOTTOMS UP. MIX 85 BBLS 13.7# MUD AND PUMP.		
	6:30 - 8:00	1.50	EVALPR	06	Α	Р		TRIP UP TO 7000'. NO FLOW. MIX 85 BBL 13.7# MUD WHILE TRIPPING.		
	8:00 - 8:30	0.50	EVALPR	05	В	Р		SPOT 85 BBL 13.7# PILL. @ 7000'		
	8:30 - 13:30	5.00	EVALPR	06	Α	Р		TRIP OUT OF HOLE FOR LOGS. LD MUD MOTO AND MWD. NO FLOW.		
	13:30 - 19:00	5.50	EVALPR	11	D	Р		HOLD SAFETY MEETING W/ HALIBURTON LOGGERS AND RUN TRIPLE COMBO LOGS DEPTH 8734'		
	19:00 - 23:00	4.00	EVALPR	06	Α	Р		MAKE UP TRICONE AND BIT SUB. TRIP IN HOL FILL PIPE @ 2200'. TRIP IN HOLE TO 7000'		
	23:00 - 0:00	1.00	EVALPR	05	Α	Р		CIRC HEAVY PILL. LOST 20 BBLS. WHILE HEAVY PILL CIRC TO SURFACE. 20' FLARE.		
3/3/2009	0:00 - 1:00	1.00	EVALPR	06	Α	Р		TRIP IN HOLE TO 8734'		
	1:00 - 2:00	1.00	EVALPR	05	С	Р		HOLD SAFETY MEETING W/ KIMZEY LAYDOWN CREW.RIG UP LD TRUCK, WHILE CIRC OUT GA 20' FLARE. WASH DOWN TO 8740' MIX 80 BBL 13.7# DRY JOB AND PUMP.		
	2:00 - 10:30	8.50	EVALPR	06	Α	Р		LAYDOWN DP, BREAK KELLY, LD BHA. NO FLOW THROUGH OUT TRIP. PULL WEAR BUSHING.		
	10:30 - 12:00	1.50	CSG	12	Α	Р		HOLD SAFETY MEETING W/ KIMZEY CSG CREV RIG UP CSG CREW. RIG UP SIDE BOARD FOR STABBER.		
	12:00 - 18:00	6.00	CSG	12	С	Р		RUN 206 JTS OF 4.5" 11.6# I-80 CSG TO 8733.8 FLOAT COLLAR @ 8690', WASATCH MARKER J' @ 4242'. LAND W/ FLUTED MANDREL.		
	18:00 - 19:00	1.00	CSG	05	D	Р		RIG UP CEMENTING HEAD AND CIRC. DOWN CSG. 30' BOTTOMS UP FLARE. RIG DOWN KIMZEY CSG.		
	19:00 - 22:00	3.00	CSG	12	E	P		HOLD SAFETY MEETING W/ BJ SERVICES. PSI TEST LINES TO 4500 PSI. PUMP 20 BBLS OF MI CLEAN. PUMP 20 BBLS OF 8.3# H20 SPACER. PUMP 202 BBLS (385 SX) OF11.4# 2.95 YD, 17.3 GPS LEAD HI FILL. PUMP 279 BBLS (1200 SX) 14.3# 1.31 YD 5.9 GPS OF 50/50 POZ TAIL. DRO PLUG DISPLACE W/ 135.1 BBLS OF CLAYTREA' WATER W/ MAGNACIDE. 10 BBLS OF LEAD TO SURFACE 2380 PSI OF LIFT. BUMP PLUG 2850. FLOAT HELD. WASH OUT STACK. RIG DOWN E SERVICES.		
	22:00 - 0:00	2.00	RDMO	14	Α	Р		NIPPLE DOWN, SET WELL HEAD PACKING ANI TEST TO 5000 PSI W/ FMC. INSTALL NIGHT CA CLEAN PITS.		

#### US ROCKIES REGION **Operation Summary Report** Spud Conductor: 1/17/2009 Spud Date: 1/26/2009 Well: NBU 1022-02D Site: NBU 1022-02D Rig Name No: PROPETRO/, PIONEER 68/68 Project: UTAH-UINTAH Event: DRILLING End Date: 3/4/2009 Start Date: 1/26/2009 UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0 Active Datum: RKB @4,993.00ft (above Mean Sea Level) Date P/U **MD** From Time Duration Phase Code Sub Operation Code Start-End (hr) NIPPLE DOWN STACK, AND CLEAN PITS. RELEASE RIG 02:30 03/04/2009 0:00 - 2:30 Р 2.50 RDMO 14 3/4/2009 Α

10/19/2009 12:07:51PM 5

#### US ROCKIES REGION **Operation Summary Report** Spud Conductor: 1/17/2009 Spud Date: 1/26/2009 Site: NBU 1022-02D Rig Name No: LEED 698/698 Start Date: 10/8/2009 End Date: Active Datum: RKB @4,993.00ft (above Mean Sea UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0 Duration Phase Code Sub PAU MD From Operation Code (hr) **(ft)** 0.50 COMP 48 JSA-RUSU. Р COMP RUSU. SPOT EQUIP. MU 3-7/8" MILL, BIT SUB, 11.50 31 ı AND RIH AS MEAS AND PU 275-JTS 2-3/8" J-55

TBG TO TAG AT 8670. RU PWR SWIVEL. EST REV CIRC. D/O TO F.C. AT 8689' AND 11' CMT TO 8700 W/ 276-JTS IN. CIRC CLEAN. RD PWR SWIVEL. POOH AS LD 14-JTS AND SB 262-JTS. RD FLOOR. ND BOP. NU FRAC VAVLES. RU

FLOOR. P-TEST CSG TO 7000#.

JSA FRAC & PERF SAFETY

10/19/2009 12:08:42PM

Well: NBU 1022-02D

Project: UTAH-UINTAH

Time

Start-End

7:00 - 7:30

7:30 - 19:00

7:00 - 7:15

0.25

COMP

48

Р

**Event: COMPLETION** 

Level)

Date

3/18/2009 10/9/2009

10/12/2009

Nell: NBU 10	22-02D			Spud C	onductor	r: 1/17/20	109	Spud Date: 1	/26/2009		
Project: UTAH	I-UINTAH			Site: NB	U 1022-	02D			Rig Name No: LEED 698/698		
Event: COMP	LETION			Start Da	te: 10/8/	2009			End Date:		
Active Datum: _evel)	RKB @4	,993.00ft (a	above Mean	Sea	UWI: 0	)/10/S/22	/E/2/0/NV	/NW/6/PM/N/1	1,090.00/W/0/990.00/0/0		
Date		ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation :		
	7:15	- 17:00	9.75	COMP	30				SUPERIOR RIGGED UP & READY SCHLUMBERGER ARIVED @ 7:30 SPOT IN RU START IN HOLE W/ 1ST SHOOT @		
									STAGE #1] RIH W PERF GUN PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, 0.36" HOLE 8666'-8676'4 SPF' 90* PH 40 HOLES		
									WHP=1100#, BREAK DWN PERFS @ 4386#, INJ PSI=4800, INJ RATE=47, ISIP=3026#, FG=.78, PUMPED 2279 BBLS SLK WTR W/ 79590# 30/50 MESH, W/5000# RESIN COAT IN TAIL. ISIP=3144#, FG=.80, AR=47.7, AP=4898#,MR=48.6,MP=5710#, NPI=118#, W/28/40 CALC PERFS OPEN 70%.		
									STAGE #2] P/U RIH W/ HALLI 8K CBP & PERF GUN SET CBP @8370' PERF MESA VERDE USING 3-3/8" EXPEND GUNS, 23 GRM,0.36" HOLE 8334'-8340' 4 SPF, 90* PH, 24 HOLES 8286'-8288' 3 SPF, 120* PH 6 HOLES 8239'-8241' 3 SPF, 120* PH, 6 HOLES 8190'-8192' 3 SPF, 120* PH 6 HOLES		
									WHP=1338#, BREAK DWN PERFS @ 2855#, INJ PSI=4700, INJ RATE=48, ISIP=2183#, FG=.70, PUMPED 2211.9 BBLS SLK WTR W/ 76832# 30/50 MESH, W/5000# RESIN COAT IN TAIL. ISIP=2618#, FG= .75, AR=48.1, AP=4466#,MR=50.2,MP=4286#, NPI=435#, W/42/42 CALC PERFS OPEN 100%.		
									STAGE #3] P/U RIH W/ HALLI 8K CBP & PERF GUN SET CBP @8370' PERF MESA VERDE USING 3-3/8" EXPEND GUNS, 23 GRM,0.36" HOLE. 8052'-8054' 4 SPF, 90* PH, 8 HOLES 8009'-8011' 4 SPF 90* PH, 8 HOLES 7994'-7996' 3 SPF 120* PH 6 HOLES 7952'-7955' 4 SPF, 90* PH 12 HOLES 7868'-7871' 3 SPF, 120* PH 9 HOLES		
									WHP=960#, BREAK DWN PERFS @ 2370#, INJ PSI=5100, INJ RATE=45, ISIP=2240#, FG=.71, PUMPED 1715 BBLS SLK WTR W/ 47953# 30/50 MESH, ISIP=2550#, FG= .75, AR=44, AP=4289#,MR=49.7,MP=5413#, NPI=310#, W/43/43 CALC PERFS OPEN 100%.		
									, LOST 2 PUMP TRUCKS DUE TO LOST VALVES RATE SLOWED TO LEVEL OF NOT CARING SAND WENT TO FLUSH LOST 3 TRUCK BROKE MANIFOLD SHUT DWN TIED 2 TRUCKS TO BLENDER FLUSHED SAND TO PERFS SHUT DWN 47953# SAND IN TO 3RD STAGE SDFN TO MAKE REPAIRS FINISH STAGE IN AM.		

10/19/2009 12:08:42PM

3

#### **US ROCKIES REGION**

**Operation Summary Report** Spud Conductor: 1/17/2009 Spud Date: 1/26/2009 Well: NBU 1022-02D Site: NBU 1022-02D Project: UTAH-UINTAH Rig Name No: LEED 698/698 **Event: COMPLETION** Start Date: 10/8/2009 End Date: Active Datum: RKB @4,993.00ft (above Mean Sea UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0 Level) MD From Date Time Duration Phase Code Sub PIU Operation Start-End (hr) Code **(ft)** 7:15 - 14:00 COMP 30 6.75 2ND 1/2 OF STAGE #3 WHP=1338#, BREAK DWN PERFS @ 2855#, INJ PS=4700, INJ RATE=48, ISIP=2183#, FG=.70, PUMPED 2211.9 BBLS SLK WTR W/ 76832# 30/50 MESH, ISIP=2618#, FG= .75, AR=48.1, AP=4466#,MR=50.2,MP=4286#, NPI=435#, W/42/42 CALC PERFS OPEN 100%. STAGE #4] PU RIH WHALLI 8K CBP & PERF GUN. SET CBP@7791' PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, 0.36" HOLE. 7758'-7761' 4 SPF, 90\* PH 12 HOLES 7642'-7645' 3 SPF, 120\* PH 9 HOLES 7582'-7584' 4 SPF, 90\* PH 8 HOLES 7473'-7475', 2 SPF, 180\* PH 4 HOLES 7444'-7446', 2 SPF, 180\* PH 4 HOLES WHP=1395#, BREAK DWN PERFS @ 3420#, INJ PSI=6144, INJ RATE=37.5, ISIP=2318#, FG=.74, PUMPED 2662 BBLS SLK WTR W/ 112867# 30/50 MESH, W/5000# RESIN COAT IN TAIL, ISIP=2257#. FG= .73, AR=50.1, AP=4550#, MR=50.5, MP=6195#, NPI=-65#, W/37/37 CALC PERFS OPEN 100%. PU RIH W/ HALLI 8K CBP, SET FOR KILL PLUG @ 7394' RDMO SCHLUMBERGER WIRE LINE & SUPERIOR FRAC EQUIP ND FRAC VALVES NU BOPS RU TUBING EQUIP PU 3-7/8" BIT W/ POBS PKG RIH TAG KILL PLUG PU PWR SWIVEL, PREP TO DRILL IN AM SDFN. JSA DRILL PLUGS 10/14/2009 7:00 - 7:15 48 0.25 7:15 - 17:00 9.75 COMP 30 OPEN WELL 0 PSI EST CIRC PLUG #1] TAG SAND @ 7374' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7394' IN 7 MIN W/ 200# INCREASE PLUG #2] CONTINUE TO RIH TAG SAND @ 7761' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @7791' IN 12 MIN W/ 100# INCREASE PLUG #3] CONTINUE TO RIH TAG SAND @ 8054'(30' FILL) C/O & DRILL THRU HALLI 8K CBP 8084' IN 7 MIN W/ 50# INCREASE PLUG #4] CONTINUE TO RIH TAG SAND @ 8335' (35" FILL) C/O & DRILL THRU HALLI 8K CBP 8370' IN 7 MIN W/ 0 INCREASE CONTINUE TO RIH TAG SAND @ 8665' C/O & DRILL TO PBTD @ 8700' CIRC CLEAN RD SWVL LD 18 JNTS LAND TUB ON HANGER W/ 258 JNTS OF 2-3/8" J-55 EOT @ 8150.49' DROP BALL RD FLOOR & TUB EQUIP ND BOPS NU WELL HEAD NU RIG PMP, PUMP OFF BIT SUB @ 2500# SHUT WELL IN 30 MIN TURN WELL OVER TO FBC RIG DWN MOVE TO NBU 1022-2F 10/15/2009 7:00 33 7 AM FLBK REPORT: CP 2700#, TP 2100#, 20/64" Α CK, 55 BWPH, MED SAND, LIGHT GAS TTL BBLS RECOVERED: 3010

10/19/2009 12:08:42PM

**BBLS LEFT TO RECOVER: 6916** 

## **Operation Summary Report**

 Well: NBU 1022-02D
 Spud Conductor: 1/17/2009
 Spud Date: 1/26/2009

 Project: UTAH-UINTAH
 Site: NBU 1022-02D
 Rig Name No: LEED 698/698

 Event: COMPLETION
 Start Date: 10/8/2009
 End Date:

Active Datum: RKB @4,993.00ft (above Mean Sea UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0

Level)						
Date	Time Start-End	Duration Phase (hr)	Code	Sub Code	P/U	MD From Operation (ft)
10/16/2009	7:00 -		33	Α		7 AM FLBK REPORT: CP 3350#, TP 2350#, 20/64" CK, 35 BWPH, - SAND, HEAVY GAS TTL BBLS RECOVERED: 3930 BBLS LEFT TO RECOVER: 5996
	12:45 -	PROD	50			WELL TURNED TO SALE @ 1245 HR ON 10/16/09 - FTP 2400#, CP 3275#, 2.2 MCFD, 30 BWPD, 16/64 CK
10/17/2009	7:00 -		33	Α		7 AM FLBK REPORT: CP 3250#, TP 2500#, 16/64" CK,25BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 4570 BBLS LEFT TO RECOVER: 5356
10/18/2009	7:00 -		33	Α		7 AM FLBK REPORT: CP 3100#, TP 2450#, 16/64" CK, 15 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 5055 BBLS LEFT TO RECOVER: 4871
10/19/2009	7:00 -		33	Α		7 AM FLBK REPORT: CP 3000#, TP 2375#, 16/64" CK, 15 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5415 BBLS LEFT TO RECOVER: 4511

10/19/2009 12:08:42PM 4

STATE OF UTAH AMENDED REPORT FORM 8 (highlight changes) DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22651 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG 7. UNIT or CA AGREEMENT NAME 1a. TYPE OF WELL: WELL 🗆 OTHER 891008900A WELL NAME and NUMBER: b. TYPE OF WORK: DIFF. RESVR WELL **Z** RE-ENTRY NBU 1022-02D 2. NAME OF OPERATOR: 9. API NUMBER: KERR McGEE OIL & GAS ONSHORE LP 4304739955 10 FIELD AND POOL, OR WILDCAT 3. ADDRESS OF OPERATOR: PHONE NUMBER: STATE CO ZIP 80217 (720) 929-6100 NATURAL BUTTES P.O. BOX 173779 CITY DENVER 4. LOCATION OF WELL (FOOTAGES) QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: AT SURFACE: NWNW 1090 FNL & 990 FWL 2-10S-22E NWNW 2 10S 22E AT TOP PRODUCING INTERVAL REPORTED BELOW: 13. STATE 12. COUNTY AT TOTAL DEPTH: 1338 FNL 1034 FWL SWNW S-2 TIOS R PAE UTAH UINTAH 15. DATE T.D. REACHED: 16. DATE COMPLETED: 17. ELEVATIONS (DF, RKB, RT, GL): READY TO PRODUCE ABANDONED 4975' GL 3/2/2009 1/17/2009 10/16/2009 19. PLUG BACK T.D.: MD 8,690 18. TOTAL DEPTH: MD 8,740 21. DEPTH BRIDGE MD 20. IF MULTIPLE COMPLETIONS, HOW MANY? \* TVD TVD 8,735 22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) WAS WELL CORED? ио 🗸 YES (Submit analysis) BHV-DSN SDL ACRT-CBL WAS DST RUN? NO 🗸 YES [ (Submit report) DIRECTIONAL SURVEY? NO. YES D (Submit copy) 24. CASING AND LINER RECORD (Report all strings set in well) STAGE CEMENTER CEMENT TYPE & SLURRY AMOUNT PULLED HOLE SIZE SIZE/GRADE WEIGHT (#/ft.) TOP (MD) BOTTOM (MD) CEMENT TOP \*\* NO. OF SACKS VOLUME (BBL) **DEPTH** 20" 14" 28 STL 36.7# 40 36# 2.249 12 1/4" 9 5/8 J-55 675 7 7/8" 4 1/2 **I-80** 11.6# 8,733 1585 25. TUBING RECORD PACKER SET (MD) DEPTH SET (MD) PACKER SET (MD) DEPTH SET (MD) PACKER SET (MD) DEPTH SET (MD) SIZE SIZE 2 3/8" 8,150 27. PERFORATION RECORD 26. PRODUCING INTERVALS NO. HOLES PERFORATION STATUS FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE 7.444 0.36 162 Open 🗸 8.676 Squeezed **MESAVERDE** 7,444 8,676 Open Squeezed (B) Open Squeezed (C) (D) Open Squeezed AMOUNT AND TYPE OF MARERIAL RECEIVED 28. ACID. FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. DEPTH INTERVAL ź PMP 9,905 BBLS SLICK H20 & 366,885 LBS 30/50 SD. 7,444-8,676 DIV. OF OIL, GAS & MINING 29. ENCLOSED ATTACHMENTS: 30. WELL STATUS: DIRECTIONAL SURVEY ELECTRICAL/MECHANICAL LOGS GEOLOGIC REPORT DST REPORT PROD OTHER: CORE ANALYSIS SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

21	INITIAL	PPONI	ICTION
. J	INITIAL	TNOO	

#### INTERVAL A (As shown in item #26)

DATE FIRST PR	ODUCED:	TEST DATE:		l	HOURS TESTED:		OIL – BBL;	GAS - MCF:	WATER - BBL:	PROD. METHOD:
10/16/200	)9	10/19/200	)9	2	24	RATES: →	40	2,436	320	FLOWING
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION	1	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
14/64	683	2,982				RATES: →	40	2,436	320	PROD
				wn in item #26)						
DATE FIRST PR	ODUCED:	TEST DATE:				TEST PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER – BBL:	INTERVAL STATUS:
				INTE	ERVAL C (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	):	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS MCF:	WATER BBL:	INTERVAL STATUS:
				INT	ERVAL D (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE:		HOURS TESTED	:	TEST PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (Sold,	Used for Fuel, Ve	nted, Etc.)							
33. SUMMARY	OF POROUS ZON	ES (Include Aquif	ers):			34	. FORMATION (L	.og) MARKERS:		
Show all importa	nt zones of porosit	y and contents the	reof: Cored interval	ls and all drill-stem	tests, including de	epth interval				

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER MAHOGANY WASATCH MESAVERDE	1,147 1,895 4,198 6,528	6,474 8,689			

35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED TO THIS COMPLETION REPORT IS THE CHRONOLOGICAL WELL HISTORY...

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.								
NAME (PLEASE PRINT) ANDY LYTLE	TITLE	REGULATORY ANALYST						
SIGNATURE AS S	DATE	11/17/2009						

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

#### 1 General

#### 1.1 Customer Information

	US ROCKIES REGION
Representative	
Address	

#### 1,2 Well Information

Well	NBU 1022-2D	Wellbore No.	ОН
Well Name	NBU 1022-2D	Common Name	NBU 1022-2D
Project	UTAH-UINTAH	Site	NBU 1022-2D
Vertical Section Azimuth		North Reference	True
Origin N/S		Origin E/W	
Spud Date	1/26/2009	UWI	0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/9 90.00/0/0
Active Datum	RKB @4,993.00ft (above Mean	Sea Level)	

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	PRO SHOT
Started	2/24/2009	Ended	
Tool Name	MWD	Engineer	

#### 2.1.1 Tie On Point

MD	Inc	Azi	TVD	N/S	E/W
(ft)	(°)	(°)	(ft)	(ft)	(ft)
0.00	0.00	0.00	0.00	0.00	

#### 2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/24/2009	Tie On	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/24/2009	NORMAL	2,239.00	1.70	157.20	2,238.67	-30.62	12.87	-30.62	0.08	0.08	0.00	157.20
	NORMAL	3,156.00	1.80	187.00	3,155.26	-57.45	16.39	-57.45	0.10	0.01	3.25	98.76
2/25/2009	NORMAL	4,261.00	1.80	194.20	4,259.72	-91.50	10.01	-91.50	0.02	0.00	0.65	93.60
2/26/2009	NORMAL	5,274.00	2.00	194.00	5,272.16	-124.08	1.84	-124.08	0.02	0.02	-0.02	-2.00
2/27/2009	NORMAL	6,246.00	2.10	151.00	6,243.59	-156.11	6.37	-156.11	0.15	0.01	-4.42	-107.94
2/28/2009	NORMAL	7,262.00	1.90	145.20	7,258.98	-186.22	25.00	-186.22	0.03	-0.02	-0.57	-137.53
3/2/2009	NORMAL	8,698.00	3.40	172.20	8,693.45	-247.97	44.37	-247.97	0.13	0.10	1.88	53.79

## **RECEIVED**

JAN 0 5 2010

DIV. OF OIL, GAS & MINING

January 05, 2010 at 1:21 pm

OpenWells

			0				EGION <b>ary Repo</b> i	
Well: NBU 10	22-02D		Spud Co	onductor	: 1/17/20	009	Spud Date: 1	/26/2009
Project: UTAH-UINTAH Site: N				U 1022-	02D			Rig Name No: PROPETRO/, PIONEER 68/68
Event: DRILLING Start				te: 1/26/	2009			End Date: 3/4/2009
Active Datum: Level)	RKB @4,993.00ft (	above Mear	n Sea	UWI: 0	/10/S/22	/E/2/0/N\	WNW/6/PM/N/	1,090.00/W/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
1/26/2009	0:30 - 12:00 12:00 - 0:00	11.50 12.00	DRLSUR DRLSUR	02 02		P P		AIR SPUD 00:30 1/26/2009 DRILL F/ 40' TO 750'. WITH AIR HAMMER. NO WATER.
1/27/2009	0:00 - 12:00	12.00	DRLSUR	02		P		DRILL F 750' TO 1110' W/ AIR HAMMER (NO WATER) DRILL F/ 1110' TO 1440' BIT TRIP @ 1380' NO
	12:00 - 0:00	12.00	DRLSUR	02		P		WATER DRILL F/ 1440' TO 1530' WATER @ 1470'
1/28/2009	0:00 - 5:30	5.50	DRLSUR	02		Р		SURVEY @1530'= 1 DEGREE DRILL F/ 1530' TO 1650'. CIRC W/ SKID PUMP.
	5:30 - 0:00	18.50	DRLSUR	19	Α	Р		PUMP PROBLEMS. STUCK PIPE. REGAIN CIRC. BUT WAS STILL UNABLE TO UNSTICK PIPE. FREE POINT. FREE TO BIT. BACK OUT 1 COLLAR ABOVE BIT. TRIP OUT AND PICK UP WASH PIPE. TRIP DOWN. UNABLE TO GET DOWN TO FISH.
1/29/2009	0:00 - 6:00	6.00	DRLSUR	19	Α	Z		TRIP IN HOLE W/ WASH PIPE, WASH PIPE WOULD NOT WASH DOWN 100' ABOVE FISH. TRIP OUT W/ WASH PIPE.
	6:00 - 12:00	6.00	DRLSUR	19	Α	Z		TRIP OUT W/ WASH PIPE, AND PICK UP 12 1/4 TRI-CONE AND WASH TO TOP OF FISH, TRIP OUT W/ TRICONE
	12:00 - 18:00	6.00	DRLSUR	19	Α	Z		TRIP OUT OF HOLE, P/U 60' WASH PIPE AND TRIP IN, BRIDGE OUT 40' ABOVE FISH, START WASHING DOWN TO FISH.
	18:00 - 0:00	6.00	DRLSUR	19	Α	Z		WASH DOWN TO FISH AND OVER FISH.
1/30/2009	0:00 - 6:00	6.00	DRLSUR	19	Α .	Z 		WASH OVER FISH, TRIP OUT OF HOLE W/ WASH PIPE. LD WASH PIPE.
	6:00 - 12:00 12:00 - 18:00	6.00 6.00	DRLSUR	19 19	A A	z z		P/U OVERSHOT AND TRIP IN HOLE, CATCH FISH.
	18:00 - 0:00	6.00	DRLSUR	02	A	Z P		TRIP OUT OF HOLE W/ FISH, LD FISH, AND FISHING TOOLS.  DRILL F/ 1650' TO 1710'. PUMP W/ SKID PUMP
1/31/2009	0:00 - 12:00	12.00	DRLSUR				•	TO CONTROL WATER GAIN.
1/31/2009	12:00 - 0:00	12.00	DRLSUR	02 02		P P		DRILL F/ 1710' TO 1950' CIRC W/ SKID PUMP DRILL F/ 1950' TO 2160' SURVEY 2010'= 2 1/2 DEGREES. REDUCE WT ON BIT. CIRC W/ SKID PUMP
2/1/2009	0:00 - 8:00	8.00	DRLSUR	02		Р		DRILL F/ 2160' TO 2270' TD 08:00 2/1/2009 SURVEY 2270'= 1.5 DEGREES
	8:00 - 12:00	4.00	DRLSUR	06		Р		CIRC AND CLEAN HOLE, LDDS.
	12:00 - 17:00	5.00	DRLSUR	12		Р		RUN 52 JTS OF 9-5/8" OF 36#, J-55, LT&C TO THE DEPTH 2231.9'
	17:00 - 18:30	1.50	DRLSUR	12		Р		PUMP 350 SX (72 BBLS) 2% CAL 15.8#, 1.15 YD, 5 GAL/SX TAIL CEMENT. DISPLACE W/ 169 BBLS OF H20, 300 PSI LIFT. BUMP PLUG 800 PSI. FLOAT HELD.
	18:30 - 20:30	2.00	DRLSUR	12		Р		TOP #1 PUMP 100 SX (20 BBLS) SX 4% CAL 15.8#, 1.15 YD, 5 GAL/SX DOWN BACK SIDE
0/00/5	20:30 - 21:00	0.50	DRLSUR	12		Р		TOP#2 PUMP 225 SX (46 BBLS) SX 2% CAL 15.8#, 1.15 YD, 5 GAL/SX DOWN BACKSIDE CEMENT TO SURFACE AND STAYED.
2/22/2009	13:00 - 0:00 0:00 - 7:00	11.00	RDMO	01	E	Р		RIG DOWN RIG AND READY FOR RIG MOVE. RIG MOVE IS 1/2 MILE NORTH.
2/23/2009	0.00 - /:00	7.00	RDMO	01	F	P		RIG DOWN RIG AND READY FOR TRUCK

11/17/2009 2:30:10PM

0:00 - 7:00 7.00

RDMO 01 E P

2/23/2009

RIG DOWN RIG AND READY FOR TRUCK.

			0	perat	ion S	umm	ary Repor	
Well: NBU 10	22-02D		Spud Co	onductor	: 1/17/20	009	Spud Date: 1.	/26/2009
Project: UTAH	I-UINTAH		Site: NB	U 1022-	02D			Rig Name No: PROPETRO/, PIONEER 68/68
Event: DRILLI	NG		Start Da	te: 1/26/	2009			End Date: 3/4/2009
Active Datum: RKB @4,993.00ft (above Mean Level)			Sea	UWI: 0	/10/S/22	2/E/2/0/N	WNW/6/PM/N/1	0,00,00/W/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 11:00	4.00	RDMO	01	A	Р		HOLD SAFETY MEETING W/ L&S TRUCKING, J C CRANE, AND PIONEER DRILLING ABOUT MOVING RIG. BRUCE TAYLOR SAFETY HAND ATTENDED. TEAR DOWN RIG AND MOVE RIG 1/2 MILE TO LOCATION 7 TRUCKS. 3 SWAMPERS, 1 TRUCK PUSHER, 2 FORKLIFTS, 1 CRANE OPERATOR, 3 CRANE SWAMPERS. 6 HANDS, 1 TOOL PUSHER.
	11:00 - 15:00	4.00	MIRU	01	В	Р		MOVE IN AND RIG UP RIG. SPOT ENTIRE RIG. @ 13:00 HELD SAFETY MEETING W/ MOUNTAIN WEST. AND MOUNTAIN WEST STARTED MOVING CAMPS. TRUCKS RELEASE @ 15:00. MOUNTAIN WEST RELEASED @ 16:00. JC CRANE RELEASE @ 16:00. HALF MASS DERRICK AND RAISE SUB
	15:00 - 0:00	9.00	MIRU	01	В	Р		RAISE DERRICK AND RIG UP RIG. RIG 90 % RIGGED UP.
2/24/2009	0:00 - 1:00	1.00	MIRU	01	В	P		RIG UP RIG.
	1:00 - 5:30	4.50	DRLPRO	14	Α	Р		INSTALL FMC LOCKDOWN FLANGE AND TEST TO 5,000 PSI, NIPPLE UP BOP, NIPPLE UP CHOKE LINE. NIPPLE UP KILL LINE, NIPPLE UP ROT HEAD AND FLOW LINE. HOOK UP HYDRALICS ANF FUNCTION TEST BOP'S. INSTALL FLARE LINES.
	5:30 - 10:30	5.00	DRLPRO	15	A	P		HOLD SAFETY MEETING W/ SINGLE JACK TESTING. TEST BLIND, PIPE, UPPER AND LOWER KELLY VALVE, DART VALVE, FLOOR VALVE INSIDE OUTSIDE BOP VALVES, AND CHOKE MANIFOLD TO 5000 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST ANNULLAR TO 2500 PSI FOR 15 MIN AND 250 TEST FOR 5 MIN. TEST CSG TO 1500 PSI FOR 30 MIN. RUN WEAR BUSHIN. PERFORM ACCUM. FUNCTION TEST.
	10:30 - 12:30	2.00	DRLPRO	09	Α	P		SLIP AND CUT DRILL LINE.
	12:30 - 18:00	5.50	DRLPRO	06	Α	P		HOLD SAFETY MEETING W/ KIMZEY LAYDOWN CREW. RIG UP KIMZEY LAYDOWN TRUCK AND P/U BHA. TAG CEMENT 2140'. RIG DOWN KIMZEY CSG.
	18:00 - 19:00	1.00	DRLPRO	14	В	P		INSTALL ROT. RUBBER, CHECK GAS BUSTER AND MUD LINE FOR LEAKS, PERFORM PRESPUD INSPECTION.
	19:00 - 20:30		DRLPRO	02	F	Р		DRILL CEMENT FROM 2140' TO 2288'. FLOAT 2208', SHOE @ 2253'
	20:30 - 0:00	3.50	DRLPRO	02	В			DRILL 2288'-2691' (403', 115'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1360/1050 DIFF 300, P/U-SO-ROT= 90,80,86 MW 8.3 VIS 27
2/25/2009	0:00 - 4:30	4.50	DRLPRO	02	В	Р		DRILL 2691- 3194' (503', 111'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1360/1050 DIFF 300, P/U-SO-ROT= 90,80,86 MW 8.3 VIS 27
	4:30 - 5:00	0.50	DRLPRO	10	D	Ρ		SURVEY W/ MWD. 3156'= 1.8 DEGREES AZI 1.8
	5:00 - 15:00		DRLPRO	02	В	Р		DRILL 3194' - 4400' (1206', 121'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1500/1200 DIFF 300, P/U-SO-ROT= 122-114-119 MW 8.7 VIS 32
	15:00 - 15:30		DRLPRO	07	Α	Р		RIG SERVICE, FUNCTION BOP'S
	15:30 - 0:00	8.50	DRLPRO	02	В	Р		DRILL 4400' -5257' (857', 101'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1600/1300 DIFF 300, P/U-SO-ROT= 135-120-130 MW 8.3 VIS 27 NO LOSSES.

11/17/2009

2:30:10PM

# Operation Summary Report

Well: NBU 102			Spud Co				Spud Date: 1/	26/2009
Project: UTAH	-UINTAH		Site: NBI	J 1022-0	02D			Rig Name No: PROPETRO/, PIONEER 68/68
Event: DRILLI	NG		Start Dat	e: 1/26/2	2009			End Date: 3/4/2009
Active Datum: _evel)	RKB @4,993.00ft (	above Mear	Sea	UWI: 0	/10/S/22	/E/2/0/N	NNW/6/PM/N/1	,090.00/\/\/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/26/2009	0:00 - 13:30	13.50	DRLPRO	02	В	Р	(19	DRILL 5257'- 6109' (852', 63'/HR) WOB 18-20, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1750/1450 DIFF 300, P/U-SO-ROT= 150-138-144 MW 9.5 VIS 36 NO LOSSES.
	13:30 - 14:00	0.50	DRLPRO	07	Α	Р		RIG SERVICE. FUNCTION BOP'S.
	14:00 - 16:00 16:00 - 16:30	2.00	DRLPRO	02	В	Р		DRILL 6109'- 6158' (49', 24.5'/HR) WOB 20-28, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1750/1500 DIFF 300, P/U-SO-ROT= 151-140-146 MW 9.5 VIS 36 NO LOSSES.
	16:30 - 17:30	1.00	DRLPRO	05 06	C A	P P		TRANSFER 40 BBLS OF 11.5 MUD AND PUMP FOR DRY JOB.
	17:30 - 18:30	1.00	DRLPRO	03	A	X		TRIP OUT OF HOLE. TIGHT HOLE 5120'. TRY TO WORK TIGHT HOLE. NO GO. KELLY UP, BACK REAM THROUGH TIGHT HOLE.
								5120' TO 5140', CIRC. AND CLEAN OF IBS. PUMP 40 MORE BBLS OF 11.5 MUD FOR DRY JOB.
	18:30 - 21:30 21:30 - 0:00	3.00 2.50	DRLPRO DRLPRO	06	A	Р		TRIP OUT OF HOLE. NO MORE TIGHT HOLE. LD IBS. CHECK MWD, CHECK FLOAT. CHECK MOTOR. ALL OK. INSPECT BIT #1.
2/27/2009	0:00 - 2:00	2.00	DRLPRO	06	A A	P P		MAKE UP BIT #2 FMHX 545 ZM, FILL PIPE COLLARS W/ WATER ON TRIP IN, BREAK CIRC @ 2300' TRIP IN HOLE TRIP IN HOLE
Z/Z/1/Z000	2:00 - 13:30	11.50	DRLPRO	02	В	P		TRIP IN HOLE W/ BIT #2, NO TIGHT HOLE, NO LOSSES, NO GAIN. NO FILL.
				UZ.	В	Г		DRILL 6158'-6735' (577', 50'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1800/1550 DIFF 250, P/U-SO-ROT= 156-130-148 MW 9.8 VIS 38 NO LOSSES.
	13:30 - 14:00	0.50	DRLPRO	07	Α	Ρ		RIG SERVICE, FUNCTION BOP'S
	14:00 - 0:00		DRLPRO	02	В	Р		DRILL 6735'-7202' (467', 47'/HR) WOB 18-20, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1840/1590 DIFF 250, P/U-SO-ROT= 163-148-158 MW 10.2 VIS 37 NO LOSSES.
2/28/2009	0:00 - 2:30	2.50	DRLPRO	02	В	Р		DRILL 7202'- 7305' (103',41'/HR) WOB 20, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 1950/1700 DIFF 250, P/U-SO-ROT= 158-132-150 MW 10.3 VIS 38 NO LOSSES.
	2:30 - 3:00		DRLPRO	10	Α	Р		SURVEYS.
	3:00 - 14:00	11.00	DRLPRO	02	В	Р		DRILL 7305'-7716' (411',37'/HR) WOB 22, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2000/1750 DIFF 250, P/U-SO-ROT= 170-157-167 MW 10.7 VIS 38 NO LOSSES.
	14:00 - 14:30	0.50	DRLPRO	07	Α	Р		RIG SERVICE. FUNCTION BOP'S
	14:30 - 21:30		DRLPRO	02	В	P		DRILL 7716'-7920' (204',29'/HR) WOB 24, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2050/1800 DIFF 250, P/U-SO-ROT= 175-155-168 MW 10.8 VIS 38 NO LOSSES.
	21:30 - 22:00		DRLPRO	05	С	Р		MIX UP 50 BBLS 12.3# PILL AND PUMP.
	22:00 - 0:00	2.00	DRLPRO	06	Α	Ρ		TRIP OUT OF HOLE FOR BIT #2, TIGHT SPOT
3/1/2009	0:00 - 3:30	3.50	DRLPRO	06	Α	Р		6200'. TRIP OUT. TRIP OUT OF HOLE FOR BIT #2, LD DRILLING JARS, TRIP OUT. CHECK MOTOR, EVALUATE BIT #2.
	3:30 - 8:30	5.00	DRLPRO	06	Α	Р		MAKE UP BIT #3 TRIP IN HOLE. FILL PIPE @ 2300'. TRIP TO BOTTOM. NO TIGHT HOLE. NO FILL.
	8:30 - 17:30	9.00	DRLPRO	02	В	Р		DRILL 7920'-8421' (501', 56'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2100/1850 DIFF 250, P/U-SO-ROT= 181-163-174 MW 11 VIS 42 NO LOSSES.

## **Operation Summary Report**

Vell: NBU 10			Spud Co			10 <del>8</del>	Spud Date: 1/	
Project: UTAI			Site: NB	U 1022-	02D			Rig Name No: PROPETRO/, PIONEER 68/68
event: DRILL			Start Da			$oldsymbol{ol}}}}}}}}}}}}}}}}}}$		End Date: 3/4/2009
ctive Datum evel)	: RKB @4,993.00ft (	above Mea	n Sea	UWI: 0	/10/S/22	/E/2/0/N	WNW/6/PM/N/1	,090.00/W/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	17:30 - 18:30	1.00	DRLPRO	07	Α	P		RIG SERVICE, CHANGE OUT ROT HEAD
	18:30 - 0:00	5.50	DRLPRO	02	В	Р		RUBBER.  DRILL 8421-8667' (246,45'/HR) TD EXTENDED TC 8740 AS NEEDED BY GEOLOGIST. WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2200/1950 DIFF 250, P/U-SO-ROT= 184-167-178 MW 11.6 VIS 42 NO LOSSES.
3/2/2009	0:00 - 2:00	2.00	DRLPRO	02	В	Р		DRILL 8667'-8740' (73', 37'/HR) WOB 15-18, SPM= 125, GPM=473, MOTOR RPM=76, SPP ON/OFF 2250/2000 DIFF 250, P/U-SO-ROT= 185-165-175 MW 11.7 VIS 42 NO LOSSES. 5-10' FLARES ON CONNECTIONS.
	2:00 - 3:00	1.00	EVALPR	05	С	Р		CIRC. BOTTOMS UP. MIX 40 BBLS 12.7# DRY JOB. PUMP.
	3:00 - 4:30	1.50	EVALPR	06	E	P		SHORT TRIP TO 7800', NO FLOW DURING TRIP
	4:30 - 6:30 6:30 - 8:00	2.00	EVALPR	05	A	Р		CONDITION MUD. 25'-30' FLARE BOTTOMS UP. MIX 85 BBLS 13.7# MUD AND PUMP.
		1.50	EVALPR	06	Α	Ρ		TRIP UP TO 7000'. NO FLOW. MIX 85 BBL 13.7# MUD WHILE TRIPPING.
	8:00 - 8:30 8:30 - 13:30	0.50	EVALPR	05	В	P		SPOT 85 BBL 13.7# PILL. @ 7000'
	13:30 - 19:00	5.00	EVALPR	06	A	P -		TRIP OUT OF HOLE FOR LOGS. LD MUD MOTO AND MWD. NO FLOW.
		5.50	EVALPR	11	D	Р		HOLD SAFETY MEETING W/ HALIBURTON LOGGERS AND RUN TRIPLE COMBO LOGS DEPTH 8734'
	19:00 - 23:00	4.00	EVALPR	06	Α	Р		MAKE UP TRICONE AND BIT SUB. TRIP IN HOLI FILL PIPE @ 2200'. TRIP IN HOLE TO 7000'
	23:00 - 0:00	1.00	EVALPR	05	Α	Р		CIRC HEAVY PILL. LOST 20 BBLS. WHILE HEAVY PILL CIRC TO SURFACE. 20' FLARE.
3/3/2009	0:00 - 1:00	1.00	EVALPR	06	A	Р		TRIP IN HOLE TO 8734'
	1:00 - 2:00 2:00 - 10:30	1.00 8.50	EVALPR EVALPR	05 06	C A	P P		HOLD SAFETY MEETING W/ KIMZEY LAYDOWN CREW.RIG UP LD TRUCK, WHILE CIRC OUT GA: 20' FLARE. WASH DOWN TO 8740' MIX 80 BBL 13.7# DRY JOB AND PUMP. LAYDOWN DP, BREAK KELLY, LD BHA. NO
								FLOW THROUGH OUT TRIP. PULL WEAR BUSHING.
	10:30 - 12:00	1.50	CSG	12	Α	Р		HOLD SAFETY MEETING W/ KIMZEY CSG CREW RIG UP CSG CREW. RIG UP SIDE BOARD FOR STABBER.
	12:00 - 18:00	6.00	CSG	12	С	Ρ		RUN 206 JTS OF 4.5" 11.6# I-80 CSG TO 8733.8' FLOAT COLLAR @ 8690', WASATCH MARKER JT @ 4242'. LAND W/ FLUTED MANDREL.
	18:00 - 19:00	1.00	CSG	05	D	Р		RIG UP CEMENTING HEAD AND CIRC. DOWN CSG. 30' BOTTOMS UP FLARE. RIG DOWN KIMZEY CSG.
	19:00 - 22:00	3.00	CSG	12	Е	P		HOLD SAFETY MEETING W/ BJ SERVICES. PSI TEST LINES TO 4500 PSI. PUMP 20 BBLS OF MU CLEAN. PUMP 20 BBLS OF 8.3# H20 SPACER. PUMP 202 BBLS (385 SX) OF11.4# 2.95 YD, 17.3 GPS LEAD HI FILL. PUMP 279 BBLS (1200 SX) 14.3# 1.31 YD 5.9 GPS OF 50/50 POZ TAIL. DROF PLUG DISPLACE W/ 135.1 BBLS OF CLAYTREAT WATER W/ MAGNACIDE. 10 BBLS OF LEAD TO SURFACE 2380 PSI OF LIFT. BUMP PLUG 2850. FLOAT HELD. WASH OUT STACK. RIG DOWN B. SERVICES.
	22:00 - 0:00	2.00	RDMO	14	Α	Р		NIPPLE DOWN, SET WELL HEAD PACKING AND TEST TO 5000 PSI W/ FMC. INSTALL NIGHT CAP CLEAN PITS.

11/17/2009

2:30:10PM

	O			KIES RE	EGION I <b>ry Repor</b>				
Well: NBU 1022-02D	Spud C	ud Conductor: 1/17/2009 Spud Date: 1/26/2009							
Project: UTAH-UINTAH	U 1022-0	)2D			Rig Name No: PROPETRO/, PIONEER 68/68				
Event: DRILLING	Start Da	tart Date: 1/26/2009				End Date: 3/4/2009			
Active Datum: RKB @4,993.00ft (above Me Level)	an Sea	UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0							
Date Time Duration Start-End (hr)	n Phase	Code	Sub Code	P/U	MD From (ft)	Operation			
3/4/2009 0:00 - 2:30 2.50	RDMO	14	Α	Р		NIPPLE DOWN STACK, AND CLEAN PITS. RELEASE RIG 02:30 03/04/2009			

11/17/2009 2:30:10PM 5

			C	perat	ion S	Summa	ary Report
Well: NBU 102	2-02D	-	Spud C	onductor	: 1/17/2	009	Spud Date: 1/26/2009
Project: UTAH-	-UINTAH		Site: NE	BU 1022-	02D		Rig Name No: LEED 698/698
Event: COMPL	ETION		Start Da	ite: 10/9/	2009		End Date: 10/14/2009
Active Datum: F Level)	RKB @4,993.00	t (above Mean	Sea	UWI: 0	/10/S/22	2/E/2/0/N\	NNW/6/PM/N/1,090.00/W/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation
3/18/2009	-		· · · · · · · · · · · · · · · · · · ·	10:-	L.,		A V
10/9/2009	7:00 - 7:30	0.50	COMP	48		Р	JSA- RUSU.
10/12/2009	7:30 - 19:00 7:00 - 7:15	11.50 0.25	COMP	31	I	P	RUSU. SPOT EQUIP. MU 3-7/8" MILL, BIT SUB, AND RIH AS MEAS AND PU 275-JTS 2-3/8" J-55 TBG TO TAG AT 8670. RU PWR SWIVEL. EST REV CIRC. D/O TO F.C. AT 8689' AND 11' CMT TO 8700 W/ 276-JTS IN. CIRC CLEAN. RD PWR SWIVEL. POOH AS LD 14-JTS AND SB 262-JTS. RD FLOOR. ND BOP. NU FRAC VAVLES. RU FLOOR. P-TEST CSG TO 7000#. JSA FRAC & PERF SAFETY

11/17/2009

2:30:53PM

#### US ROCKIES REGION **Operation Summary Report** Spud Conductor: 1/17/2009 Well: NBU 1022-02D Spud Date: 1/26/2009 Project: UTAH-UINTAH Site: NBU 1022-02D Rig Name No: LEED 698/698 Event: COMPLETION Start Date: 10/9/2009 End Date: 10/14/2009 Active Datum: RKB @4,993.00ft (above Mean Sea UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0 Level) Date Time Duration P/U Phase Code Sub MD From Operation Start-End (hr) Code (ft) 7:15 - 17:00 9.75 COMP 30 SUPERIOR RIGGED UP & READY SCHLUMBERGER ARIVED @ 7:30 SPOT IN RU START IN HOLE W/ 1ST SHOOT @ STAGE #11 RIH W PERF GUN PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, 0.36" HOLE 8666'-8676'4 SPF' 90\* PH 40 HOLES WHP=1100#, BREAK DWN PERFS @ 4386#, INJ PS=4800, INJ RATE=47, ISIP=3026#, FG=.78, PUMPED 2279 BBLS SLK WTR W/ 79590# 30/50 MESH, W/5000# RESIN COAT IN TAIL. ISIP=3144#, FG= .80, AR=47.7, AP=4898#, MR=48.6, MP=5710#, NPI=118#, W/28/40 CALC PERFS OPEN 70%. STAGE #2] P/U RIH W/ HALLI 8K CBP & PERF GUN SET CBP @8370' PERF MESA VERDE USING 3-3/8" EXPEND GUNS, 23 GRM,0.36" HOLE 8334'-8340' 4 SPF, 90\* PH, 24 HOLES 8286'-8288' 3 SPF, 120\* PH 6 HOLES 8239'-8241' 3 SPF, 120\* PH, 6 HOLES 8190'-8192' 3 SPF, 120\* PH 6 HOLES WHP=1338#, BREAK DWN PERFS @ 2855#, INJ PSI=4700, INJ RATE=48, ISIP=2183#, FG=.70, PUMPED 2211.9 BBLS SLK WTR W/ 76832# 30/50 MESH, W/5000# RESIN COAT IN TAIL. ISIP=2618#, FG= .75, AR=48.1, AP=4466#, MR=50.2, MP=4286#, NPI=435#, W/42/42 CALC PERFS OPEN 100%. STAGE #3] P/U RIH W/ HALLI 8K CBP & PERF GUN SET CBP @8370' PERF MESA VERDE USING 3-3/8" EXPEND GUNS, 23 GRM, 0.36" 8052'-8054' 4 SPF, 90\* PH, 8 HOLES 8009'-8011' 4 SPF 90\* PH, 8 HOLES 7994'-7996' 3 SPF 120\* PH 6 HOLES 7952'-7955' 4 SPF, 90\* PH 12 HOLES 7868'-7871' 3 SPF, 120\* PH 9 HOLES WHP=960#, BREAK DWN PERFS @ 2370#, INJ PSI=5100, INJ RATE=45, ISIP=2240#, FG=71. PUMPED 1715 BBLS SLK WTR W/ 47953# 30/50 MESH, ISIP=2550#, FG= .75, AR=44, AP=4289#,MR=49.7,MP=5413#, NPI=310#, W/43/43 CALC PERFS OPEN 100%. LOST 2 PUMP TRUCKS DUE TO LOST VALVES RATE SLOWED TO LEVEL OF NOT CARING SAND WENT TO FLUSH LOST 3 TRUCK BROKE MANIFOLD SHUT DWN TIED 2 TRUCKS TO

11/17/2009 2:30:53PM 2

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10/13/2009

7:00 - 7:15

0.25

COMP

48

BLENDER FLUSHED SAND TO PERFS SHUT DWN 47953# SAND IN TO 3RD STAGE SDFN TO MAKE

REPAIRS FINISH STAGE IN AM.

JSA FRAC & PERF SAFETY

			o		S ROCK			GION <b>y Repo</b> i	
Well: NBU 102	22-02D	<u> </u>	Spud C	onducto	r: 1/17/20	09		Spud Date: 1	/26/2009
Project: UTAH			Site: NB					pad Dato. 1	Rig Name No: LEED 698/698
Event: COMP			Start Da			Т			
	RKB @4,993.00ft (	ahove Mean				/E/2/0	/N I\ A /N	IVA/IC/DRA/NI/	End Date: 10/14/2009 1,090.00/W/0/990.00/0/0
Level)	1110 @4,000.00it (	above ivican	Jea	OVVI. C	11 10/3/22/	L/2/0	/IN V VI	1VV/O/PIVI/IV/	1,090.00/00/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U		MD From (ft)	Operation
	7:15 - 14:00	6.75	COMP	30		P			2ND 1/2 OF STAGE #3 WHP=1338#, BREAK DWN PERFS @ 2855#, INJ PSI=4700, INJ RATE=48, ISIP=2183#, FG=.70, PUMPED 2211.9 BBLS SLK WTR W/ 76832# 30/50 MESH, . ISIP=2618#, FG= .75, AR=48.1, AP=4466#,MR=50.2,MP=4286#, NPI=435#, W/42/42 CALC PERFS OPEN 100%.  STAGE #4] PU RIH WHALLI 8K CBP & PERF GUN. SET CBP@7791' PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, 0.36" HOLE. 7758'-7761' 4 SPF, 90* PH 12 HOLES 7642'-7645' 3 SPF, 120* PH 9 HOLES 7582'-7584' 4 SPF, 90* PH 8 HOLES 7473'-7475', 2 SPF, 180* PH 4 HOLES 7444'-7446', 2 SPF, 180* PH 4 HOLES WHP=1395#, BREAK DWN PERFS @ 3420#, INJ PSI=6144, INJ RATE=37.5, ISIP=2318#, FG=.74, PUMPED 2662 BBLS SLK WTR W/ 112867# 30/50 MESH, W/5000# RESIN COAT IN TAIL. ISIP=2257#, FG= .73, AR=50.1, AP=4550#,MR=50.5,MP=6195#, NPI=-65#, W/37/37 CALC PERFS OPEN 100%.  PU RIH W/ HALLI 8K CBP, SET FOR KILL PLUG @ 7394' RDMO SCHLUMBERGER WIRE LINE & SUPERIOR FRAC EQUIP ND FRAC VALVES NU BOPS RU TUBING EQUIP PU 3-7/8" BIT W/ POBS PKG RIH TAG KILL PLUG PU PWR SWIVEL, PREP TO DRILL IN AM SDFN.
10/14/2009	7:00 - 7:15 7:15 - 17:00	0.25 9.75	COMP	48 30		P			JSA DRILL PLUGS  OPEN WELL 0 PSI EST CIRC PLUG #1] TAG SAND @ 7374' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7394' IN 7 MIN W/ 200# INCREASE  PLUG #2] CONTINUE TO RIH TAG SAND @ 7761' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @7791' IN 12 MIN W/ 100# INCREASE  PLUG #3] CONTINUE TO RIH TAG SAND @ 8054'(30' FILL) C/O & DRILL THRU HALLI 8K CBP 8084' IN 7 MIN W/ 50# INCREASE  PLUG #4] CONTINUE TO RIH TAG SAND @ 8335' (35" FILL) C/O & DRILL THRU HALLI 8K CBP 8370' IN 7 MIN W/ 0 INCREASE  CONTINUE TO RIH TAG SAND @ 8665' C/O & DRILL TO PBTD @ 8700' CIRC CLEAN RD SWVL LD 18 JNTS LAND TUB ON HANGER W/ 258 JNTS OF 2-3/8" J-55 EOT @ 8150.49' DROP BALL RD FLOOR & TUB EQUIP ND BOPS NU WELL HEAD NU RIG PMP, PUMP OFF BIT SUB @ 2500# SHUT WELL IN 30 MIN TURN WELL OVER TO FBC RIG
10/15/2009	7:00 -			33	Α				DWN MOVE TO NBU 1022-2F 7 AM FLBK REPORT: CP 2700#, TP 2100#, 20/64" CK, 55 BWPH, MED SAND, LIGHT GAS TTL BBLS RECOVERED: 3010 BBLS LEFT TO RECOVER: 6916

11/17/2009 2:30:53PM

3

			C	perat	ion S	umm	ary Repor	
Well: NBU 102	22-02D	·	Spud C	onductor	: 1/17/20	009	Spud Date: 1/2	26/2009
Project: UTAH	-UINTAH		Site: NE	3U 1022-	02D			Rig Name No: LEED 698/698
Event: COMPL	ETION		Start Da	ate: 10/9/	2009			End Date: 10/14/2009
Active Datum: Level)	RKB @4,993.00ft (	above Mean	Sea	UWI: 0	/10/S/22	2/E/2/0/N\	WNW/6/PM/N/1	,090.00/W/0/990.00/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/16/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 3350#, TP 2350#, 20/64" CK, 35 BWPH, - SAND, HEAVY GAS TTL BBLS RECOVERED: 3930 BBLS LEFT TO RECOVER: 5996
	12:45 -		PROD	50				WELL TURNED TO SALE @ 1245 HR ON 10/16/09 - FTP 2400#, CP 3275#, 2.2 MCFD, 30 BWPD, 16/64 CK
10/17/2009	7:00 -			33	Α			7 AM FLBK REPORT: CP 3250#, TP 2500#, 16/64" CK,25BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 4570 BBLS LEFT TO RECOVER: 5356
10/18/2009	7:00 -			33	Α			7 AM FLBK REPORT: CP 3100#, TP 2450#, 16/64" CK, 15 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 5055 BBLS LEFT TO RECOVER: 4871
10/19/2009	7:00 -			33	Α			7 AM FLBK REPORT: CP 3000#, TP 2375#, 16/64" CK, 15 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5415 BBLS LEFT TO RECOVER: 4511
	9:59 -		PROD	50				WELL IP'D ON 10/19/09 - 2436 MCFD, 40 BOPD, 320 BWPD, CP 2982#, FTP 683#, CK 14/64" LP 125#, 24 HRS

11/17/2009 2:30:53PM

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		<b>5.LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-22651
SUND	RY NOTICES AND REPORTS O	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen ex agged wells, or to drill horizontal laterals. Use	xisting wells below current APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-02D
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047399550000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONE treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1090 FNL 0990 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWNW Section: 02	(P, RANGE, MERIDIAN: 2 Township: 10.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
10/7/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	✓ RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	☐ APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION ☐	OTHER	OTHER:
The Operator request proposes to recommingle the recommingle t	mpleted operations. Clearly show all perting to approval to recomplete the somplete the Wasatch and Mesavapleted formations with the existence see the attached procedure.	ubject well. The Operator verde formations and ting Mesaverde formatior Thank you.	
NAME (PLEASE PRINT) Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	TITLE Regulatory Analyst	
SIGNATURE	, 20 323 0200	DATE	
N/A		10/6/2011	

## Greater Natural Buttes Unit



#### **NBU 1022-2D**

RE-COMPLETIONS PROCEDURE

DATE:8/17/2011 AFE#:2063719 API#:4304739955

**USER ID:rachappe** (Frac Invoices Only)

**COMPLETIONS ENGINEER:** Rachael Hill, Denver, CO

(720)-929-6599 (Office) (303)-907-9167 (Cell)

SIGNATURE:

**ENGINEERING MANAGER: JEFF DUFRESNE** 

SIGNATURE:

## REMEMBER SAFETY FIRST!

Name: NBU 1022-2D

Location: NW NW SEC2 T10S R22E

LAT: 39.982267 LONG: -109.413150 COORDINATE: NAD83 (surface location)

**Uintah County, UT** 

Date: 8/17/2011

**ELEVATIONS:** 4975' GL 4993' KB Frac Registry TVD: 8735

**TOTAL DEPTH:** 8740' **PBTD:** 8689'

**SURFACE CASING:** 9 5/8", 36# J-55 LT&C @ 2250' **PRODUCTION CASING:** 4 1/2", 11.6#, I-80 LT&C @ 8734'

Marker Joint 4276-4297'

#### **TUBULAR PROPERTIES:**

	BURST	COLLAPSE	DRIFT DIA.	CAPACITIES	
	(psi)	(psi)	(in.)	(bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55	7,700	8,100	1.901"	0.00387	0.1624
tbg					
4 ½" 11.6# I-80	7780	6350	3.875"	0.0155	0.6528
(See above)					
2 3/8" by 4 ½"				0.0101	0.4227
Annulus					

#### TOPS: BOTTOMS:

1145' Green River Top

1368' Bird's Nest Top

1874' Mahogany Top

4205' Wasatch Top 6519' Wasatch Bottom

6519' Mesaverde Top 8740' Mesaverde Bottom (TD)

T.O.C. @ 500'

#### **GENERAL**:

- A minimum of **21** tanks (cleaned lined 500 bbl) of recycled water will be required. Note: Use biocide in tanks and the water needs to be at least 45°F at pump time.
- All perforation depths are from Halliburtons Induction-Density-Neutron log dated 3/2/2009
- 5 fracturing stages required for coverage.
- Procedure calls for 6 CBP's (8000 psi).
- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Pump scale inhibitor at 3 gpt (in pad and until 1.25 ppg ramp up is reached) and 10 gpt in all flushes except the final stage. Remember to pre-load the casing with scale inhibitor for the very first stage with 10 gpt.
- 30/50 mesh Ottawa sand, **Slickwater frac**.
- Maximum surface pressure **6200** psi.
- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). Stage acid and scale inhibitor if necessary to cover the next perforated interval.

- Call flush at 0 PPG @ inline densiometers. Slow to 5 bbl/min over last 10-20 bbls of flush. Flush to top perf.
- If distance between plug and top perf of previous stage is less than 50', it is considered to be tight spacing over flush stage by 5 bbls (from top perf)
- Tubing Currently Landed @~8148
- Originally completed on 10/12/2009

#### **Existing Perforations:**

Name NBU 1022-2D Perforation and CBP Summary

		Perfo	rations					
Stage	Zones	Top, ft	Bottom, ft	SPF	Holes	Fra	cture Cover	age
1	MESAVERDE	8666	8676	4	40	8643.5		8682
	MESAVERDE					8683	1.0	8689.5
	# of Perfs/stage				40	CBP DEPTH	8,370	
2	MESAVERDE	8190	8192	3	6	8173	to	8182.5
	MESAVERDE	8239	8241	3	6	8187	to	8197
	MESAVERDE	8286	8288	3	6	8235	to	8255.5
	MESAVERDE	8334	8340	4	24	8258.5	to	8263
	MESAVERDE					8276.5	to	8289.5
	MESAVERDE					8321	to	8345.5
	# of Perfs/stage				42	CBP DEPTH	8,084	
3	MESAVERDE	7868	7871	3	9	7832	to to	7886.5
	MESAVERDE	7952	7955	4	12	7896	to	7917
	MESAVERDE	7994	7996	3	6	7945.5	to	7983.5
	MESAVERDE	8009	8011	4	8	7991.5	to	8000
	MESAVERDE	8052	8054	4	8	8002	to	8016
	MESAVERDE					8047.5	to	8051.5
	MESAVERDE					8053	to	8057.5
	# of Perfs/stage				43	CBP DEPTH	7,791	
4	MESAVERDE	7444	7446	2	4	7432		7450.5
	MESAVERDE	7473	7475	2	4	7468	to to	7478
	MESAVERDE	7582	7584	4	8	7528.5		7587.5
	MESAVERDE	7642	7645	3	9	7590	to to	7597.5
	MESAVERDE	7758	7761	4	12	7610		7657.5
	MESAVERDE					7659.5		7681
	MESAVERDE					7735.5		7743.5
	MESAVERDE					7745		7772
	# of Perfs/stage				37	CBP DEPTH	7,394	<u> </u>
	Totals				162			

#### **Relevant History:**

WINS No.: 00	893				NE	BU 102	22-2D				S	itart Date	: 3/2/2011
AFE No.: 1008	89300			Oper	ation	Sum	mary Rep	ort			ı	End Date	: 3/2/2011
Operator			FIELD NAME			SPUD CON	IDUCTOR SPI	UD DATE		GL	-	КВ	ROUTE
	EE OIL AND GAS ONS		GNB_NATU	IRAL BUT	TES	1/1	7/2009	1/26/09			4,975	4993	V41
API		S	TATE				COUNTY			DIVISION			
	4304739955			UTAH				UINTA				REGION	
Lat./Long.: Lat./Lo	ong.: 39.98230 / -109.4	1247	Q-Q/Sect/Town/R	ange:	NWN	W/ /2/	10S / 22E		Footages:	1,090.00'	FNL 99	90.00' FWL	
MTD 8740	TVD	87	35	LOG	MD			PBMD	8700		PBTVD		
EVENT INFORMA	OB		TY: WELL WO EVELOPMENT SLICKLINE		ENSE	DAT EVE	SON: SLICKL E WELL STAR NT END TUS:	TED/RES	RK SUMED: 1/26/20 MPLETE	09	AF	ENO.: 10	089300
RIG OPERATION	S: Beg	in Mobilizat	ion Rig On I	Location	Rig	Charges	Rig Opera	ation Star	t Finish Drillin	g Rig	Releas	se Rig	Off Location
Date	Time Start-End	Duration (hr)	Phase	Code	Subco	P/U			Ope	eration			
3/2/2011		DALE JEN	(INS		ue		DWC: \$520.	00	CWC:	\$520.00		MD:	
	7:00 -		PROD	35	G	P	@ 8335. pc scratcher fr FLUID LEV SN TYPE : JOB DETA SPRING AI Spring Out Stuck Sprin Bailed Acid Broken Spr Production Other Hard PLUNGER	ooh. Scra rom 7700 /EL 790 X TD ILS ND/OR P Use ng No, I Dro ring Dro Tools ware	up wireline. Rih j tch and broche t -7960. drop and 0 seat nipp (Max Depth)  RODUTION TOO d-Titanium Spr it came free p Down Menu p Down Menu Drop Down Me Drop Down Me it came free	ubbing to chase sp le 8 8335 DL DETA ing In U Corros Scale o	8135. IL Jsed-Tit ion on S	tite with gig down.	No
							Speculated of Solid LOST SLIC	ETAIL  S Yes le to turn  Down Me  Type of	enu Solid Dro	Severit wn Menu p Down I	ty of Tra Sol	Speculat	

#### **H2S History:**

The H2S for this well has historically been very low. The most recent reading shows a peak of 6ppm H2S.

<u>PROCEDURE</u>: (If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work.)

- 1. MIRU. Control well with recycled water and biocide as required. ND WH, NU BOP's and test.
- 2. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8148'). Visually inspect for scale and consider replacing if needed.

- 3. If the looks ok consider running a gauge ring to 7477' (50' below proposed CBP). Otherwise P/U a mill and C/O to 7477' (50' below proposed CBP).
- 4. Set 8000 psi CBP at ~ 7427'. ND BOPs and NU frac valves. Test frac valves and casing to 1000 and 3500 psi for 15 minutes each and to 6200 psi for 30 minutes. As per standard operating procedure install steel blowdown line to reserve pit from 4-1/2" X 7-5/8" annulus with pressure relief valve in line. Pressure relief will be set to release at 500 psig. Lock OPEN the Braden head valve. Annulus will be monitored throughout stimulation. If release occurs, stimulation will be shut down. Well conditions will be assessed and actions taken as necessary to secure the well. UDOGM will be notified if a release to the annulus occurs.
- 5. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
<b>MESAVERDE</b>	7192	7194	3	6
<b>MESAVERDE</b>	7216	7217	3	3
<b>MESAVERDE</b>	7287	7289	3	6
<b>MESAVERDE</b>	7342	7343	3	3
<b>MESAVERDE</b>	7383	7384	3	3
<b>MESAVERDE</b>	7396	7397	3	3

- 6. Breakdown perfs and establish injection rate (<u>include scale inhibitor in fluid</u>). Spot 250 gals of 15% HCL and let soak 5-10 min. Fracture as outlined in Stage 1 on attached listing. Under-displace to ~7192' and trickle 250gal 15% HCL w/ scale inhibitor in flush.
- 7. Set 8000 psi CBP at ~7084'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

```
# of shots
Zone
            From
                    To
                         spf
MESAVERDE 6902
                   6904
                                8
                         4
                                8
MESAVERDE 6931
                   6933
                         4
                         4
                                8
MESAVERDE 7052
                   7054
```

- 8. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~6902' and trickle 250gal 15% HCL w/ scale inhibitor in flush.
- 9. Set 8000 psi CBP at ~5844'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	5640	5641	4	4
WASATCH	5704	5707	4	12
WASATCH	5812	5814	4	8

- 10. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~5640' trickle 250gal 15% HCL w/ scale inhibitor in flush.
- 11. Set 8000 psi CBP at ~5418. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

```
Zone From To spf # of shots
WASATCH 5268 5273 4 20
WASATCH 5387 5388 4 4
```

12. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 4 on attached listing. Under-displace to ~5268' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

13. Set 8000 psi CBP at ~5080'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

Zone From To spf # of shots WASATCH 5044 5050 4 24

- 14. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 5 on attached listing. Under-displace to ~5044' and flush only with recycled water.
- 15. Set 8000 psi CBP at~4994'.
- 16. ND Frac Valves, NU and Test BOPs.
- 17. TIH with 3 7/8" mill, pump open sub, XN nipple and tubing
- 18. Mill 5 plugs clean out to a depth of 7407'. THE WELL WILL BE COMMINGLED AT THIS TIME.
- 19. Land tubing at 5014', drop ball and pump open sub. Flow back completion load. RDMO
- 20. MIRU, POOH tbg and mill. TIH with POBS and mill
- 21. Mill last plug @ 7427' clean out to PBTD at 8689'. Land tubing at  $\pm 8148$ ' pump off bit and bit sub . This well will be commingled at this time.
- 22. Clean out well with foam and/or swabbing unit until steady flow has been established from recompletion.
- 23. Leave surface casing valve open. Monitor and report any flow from surface casing. RDMO

For design questions, please call Rachael Hill, Denver, CO (720)-929-6599 (Office) (303)-907-9167 (Cell)

For field implementation questions, please call Jeff Samuels, Vernal, UT 435-781 7046 (Office)

#### NOTES:

If using any chemicals for pickling tubing or H2S Scavenging, have MSDS for all chemicals prior to starting work

Verify that the Braden head valve is locked OPEN.

## Service Company Supplied Chemicals - Job Totals

Friction Reducer	185	gals @	0.5	GPT
Surfactant	370	gals @	1.0	GPT
Clay Stabilizer	370	gals @	1.0	GPT
15% Hcl	0	gals @	250	gal/stg
Iron Control for acid	0	gals @	5.0	GPT of acid
Surfactant for acid	0	gals @	1.0	GPT of acid
Corrosion Inhibitor for acid	0	gals @	2.0	GPT of acid

## Third Party Supplied Chemicals Job Totals - Include Pumping Charge if Applicable

Scale Inhibitor	824	gals pumped	per schedule	above
Biocide	185	gals @	0.5	GPT

Perfs   Too   To		les 20 Co	py to new	book	1		Recomplete?	Y			Swabbing Days Production Log	0	Enter 1 if rur	er of swabbing day uning a Production		. secompte				
Total   Tota	ckwater Frac		_	$\overline{}$			ACTS?	Υ										I		Sca
Marchander   1970   700   1	ige Zo			SPE	Holes					Fluid					% of				-	
Michael Control   70   70   70   70   70   70   70   7								ppg	ppg		gaio					n or mac	iua .	IDS	CDF to Flush	ga
MESSACRICE   750   750   13   15   50   10   10   10   10   10   10					3					Slickwater		0	U	U						46
Microscope   788					1			0.05									0	0		19
## MERCHANCES   798   790   3   3   5   0   0   0   0   0   0   0   0   0															28.3%		5,134			
Michael Conference   1						50	Slickwater Ramp								28.3%		8,068			0
Security   1   1   1   1   1   1   1   1   1																				
Michael Control   Michael Co															20.2%					
### Frush depth   7192   72,113   In according to the control of t								0.70	Ι'	CHERWATER					20.5%	40.070	10,200			4
Michael   Mich							ISOP and 5 min ISOF					46,115							[	14
Contract																				
Part										Sand laden V	/olume	41,420								
Methodological   Meth				ļ.,										Flueb double	7400					
December			# of Pen	sstage	24		<< Above pump time	(min)						Flush depth	1192	,	oer depui	7,084	108	
Michael   Mich					8	Varied	Pump-in test			Slickwater		0	0	0						
MESANERICE					8					Chieferentee	7 220	7 220	172	472	15.00	0.01	١ ,			2
MCANACH   Sol   Sol   4   Value   Sol			7054	1	8			0.25	0.63											
MEAN-REGIC   SO   Dischard Flame   O   SO   Solicitude   O   SO   SO   SO   SO   SO   O   SO   SO   O	MESAVER	DE				50	SW Sweep	0	0	Slickwater	0	20,913	0	498		0.0%	0	5,982		(
Section   Sect															28.3%					
MCACHON   Supplementary   Su																				
Size	MESAVER	DE				50	Slickwater Ramp				13,674	48,260		1.149	28.3%		11,964	27,347		- (
MCASACCH   Substitute   Subst						50					4,506		107	1,256				27,347		
MCASACTON   SACE   SA							ISUP and 5 min ISUF	i				32,700								- 10
Flush depth   Source																				
Flush depth   S002   CBP depth   S44   1,503   CBP depth   S44   CBP	MESAVER	DE								Sand laden \	/clume	48,260				matimal fr	30 000	21 533	the condimate	
MACACICH   SSA0   SSA1   4   4   12   0   Spen from Star   5   5   Schwarter			# of Per	fs/stage	24									Flush depth	6902					
MASACICH   STOID   STOID   1   1   2   3   5   5   5   5   5   5   5   5   5			-					(min)												
MACASTON   S912   901   4   8   5   5   5   5   5   5   5   5   5										Slickwater		0	U	U						
MOSATCH   MOSA						50	Slickwater Pad			Slickwater	7,695	7,695	183	183	15.0%	0.0%	0	0		2
MASATOH   MASA								0.25												
SCP and 5 mm SCP   Schwatzr   S								'	4						35.0%	62.7%	20,933			
MASATCH   MASA						"					0,002	04,002		.,000				42,001		
MASATCH   MASA																		40.004		
MASATCH   MASA												54 982	88	1309				42,964		
MASATCH   MASA												V-1,000	**	.,,,,,						
MASATCH																				
Substitution   Subs										Sand laden \	/olume	51,300								
MASATCH   5380   5273   4   20   Wilder   Purple interes (mm)   1   Silckwater   0   0   0   0   0   0   0   0   0				١.,																
MASATICH   5087   5073   4   20   Varied   Pump in test   1   20   Silchwater   20   20   30   30   21   50   50   50   50   50   50   50   5			# of Per	ls/stage	24		<< Above pump time	(min)						Flush depth	5640		BP depth	5,418	222	
MASATCH   Sol   Sickwater Pad   Sol   Sickwater Page   O.25   Sickwater   Sol   Sickwater   Sol   So	WASATON																			
MASATCH   MASA					20	Varied	Pump-in test			Slickwater		0	0	0						
MASATCH   MASA	WASATCH	5387			20	Varied 0	Pump-in test ISIP and 5 min ISIP				0.035			,	15.0%	0.0%	,			-
MASATCH   MASA	WASATCH WASATCH	5387			20	Varied 0 50	Pump-in test ISIP and 5 min ISIP Slickwater Pad		1	Slickwater		9,035	215	215						
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH	5387			20	Varied 0 50 50 50	Pump-in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp			Slickwater Slickwater Slickwater	30,115 21,081	9,035 39,150 60,230	215 717 502	215 932 1,434	50.0%	37.3%	18,822	18,822 50,443		9
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH WASATCH	5387			20	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater	30,115 21,081	9,035 39,150 60,230	215 717 502	215 932 1,434	50.0%	37.3%	18,822	18,822 50,443		9
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5367			20	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater	30,115 21,081	9,035 39,150 60,230	215 717 502	215 932 1,434	50.0%	37.3%	18,822	18,822 50,443		9
Sand lader Volume   Sand	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387			20 4	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater	30,115 21,081	9,035 39,150 60,230 63,669	215 717 502 82	215 932 1,434 1,516	50.0%	37.3%	18,822	18,822 50,443 50,443		9
## Sand laden Volume   60,230   Flush depth   5268   galimate   19,000   15,913   Ibs sandimate   188	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387			20 4	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater	30,115 21,081	9,035 39,150 60,230 63,669	215 717 502 82	215 932 1,434 1,516	50.0%	37.3%	18,822	18,822 50,443 50,443		9 (
Substitute   Sub	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387			200	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater	30,115 21,081	9,035 39,150 60,230 63,669	215 717 502 82	215 932 1,434 1,516	50.0%	37.3%	18,822	18,822 50,443 50,443		9 (
SWASATCH   S044   S050   4   24   Varied   Pump in test   Stickwater	WASATCH	5387			20	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,081 3,439	9,035 39,150 60,230 63,669	215 717 502 82	215 932 1,434 1,516	50.0%	37.3%	18,822	18,822 50,443 50,443		9 (
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387			20	Varied 0 50 50 50	Pump in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2)	0.25 1		Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,081 3,439	9,035 39,150 60,230 63,669	215 717 502 82	215 932 1,434 1,516	50.0%	37.3% 62.7%	18,822 31,621	18,822 50,443 50,443 50,443	•	9 (
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387	5386	8 4	4	Varied 0 50 50 50 50	Pumpin teat ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Stickwater Ramp Flush (4-1/2) ISDP and 5 min ISDP	0.25		Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,081 3,439	9,035 39,150 60,230 63,669	215 717 502 82	215 932 1,434 1,516	50.0% 35.0%	37.3% 62.7% gal/md.ft	18,822 31,621	18,822 50,443 50,443 50,443	lbs sand/md-ft	9 (
MASATCH   Sol Sickwater Ramp   0.25   1   Slickwater   74.765   97,195   1.780   2.314   50.0%   37.3%   48.728   48.7	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387	5386	8 4	24	Varied 0 50 50 50 50 50	Pump-in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2) ISOP and 5 min ISOF	0.25		Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,081 3,439	9,035 39,150 60,230 63,669 63,669	215 717 502 82 82	215 932 1,434 1,516 1,516	50.0% 35.0%	37.3% 62.7% gal/md.ft	18,822 31,621	18,822 50,443 50,443 50,443	lbs sand/md-ft	9 (
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387	5386	8 4	24	Varied 0 50 50 50 50 50 Varied 0	Pumpi n test SISP and 5 min ISP Stickwater Paul Stickwater Ramp Stickwater Ramp Flush (4-1/2) ISOP and 5 min ISOF  es Above pump time Pumpi n test SISP and 5 min ISOF	0.25		Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,031 3,439	9,035 39,150 60,230 63,669 63,669	215 717 502 82 82	215 932 1,434 1,516 1,516 Flush depth	50.0% 35.0% 5268	37.3% 62.7% gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 50,80	lbs sand/md-ft	9 ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
MASATCH   MASA	WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH WASATCH	5387	5386	8 4	24	Varied 0 50 50 50 50 50 50 50 50 50 50 50 50 5	Pump-in test ISIP and 5 min ISIP Stickwater Pad Stickwater Ramp Stickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP Authority Stickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP Stickwater Pad	0.25 1	2	Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,081 3,439	9,035 39,150 60,230 63,669 63,669 60,230	215 717 502 82 82	215 932 1,434 1,516 1,516 Flush depth	50.0% 35.0% 5268	37.3% 62.7% gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 15,913	lbs sand/md-ft	99 (00 (00 (00 (00 (00 (00 (00 (00 (00 (
MASATCH   MASA	WASATCH WASATCH	5387	5386	8 4	24	30.3 Varied 0 50 50 50 50 50 50	Pumpin test ISIP and 5 min ISIP Sickwater Pad Sickwater Ramp Flush (4-1/2) ISOP and 5 min ISIP  4.5. Above pump time Pumpin test ISIP and 5 min ISIP Sickwater Pad Sickwater Pad Sickwater Pad Sickwater Pad Sickwater Pad	0.25 1	1	Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater Slickwater	30,115 21,081 3,439 22,430 74,765	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195	215 717 502 82 82 82	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 50,680	lbs sand/md-ft	9 ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
WASATCH   WASA	WASATCH WASATCH	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  <	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 7-colume 22,430 74,765 52,336	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530	215 717 502 82 82	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 6,080	lbs sand/md-ft	66 22
MASATCH   MASA	WASATCH WASATCH	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  <	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 7-colume 22,430 74,765 52,336	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530	215 717 502 82 82	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 6,080	lbs sand/md-ft	66 23
WASATCH   WASATCH   WASATCH   WASATCH   WASATCH   Sand laden Volume	WASATCH WASATC	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  «< Above pump time Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Pad Slickwater Ramp Flush (4-1/2)	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 7-colume 22,430 74,765 52,336	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530	215 717 502 82 82	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 50,860 0 46,728 125,231	lbs sand/md-ft	66 22 ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
WASATCH   WASA	WASATCH WASATC	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  «< Above pump time Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Pad Slickwater Ramp Flush (4-1/2)	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 7-colume 22,430 74,765 52,336	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530 152,823	215 717 502 82 82 82 0 0 534 1,780 1,246 78	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560 3,639	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 50,860 0 46,728 125,231	lbs sand/md-ft	66 22:
Sand laden Volume	WASATCH WASATC	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  «< Above pump time Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Pad Slickwater Ramp Flush (4-1/2)	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 7-colume 22,430 74,765 52,336	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530 152,823	215 717 502 82 82 82 0 0 534 1,780 1,246 78	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560 3,639	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 50,860 0 46,728 125,231	lbs sand/md-ft	66 22:
# of Perfebtage 24 Flush depth   5044 CBP depth   4,994   58    72.8 << Above pump time (min) Total Fluid   370,354   gals   8,818   bibs   Total Sand   269,465	WASATCH WASATC	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  «< Above pump time Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Pad Slickwater Ramp Flush (4-1/2)	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 7-colume 22,430 74,765 52,336	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530 152,823	215 717 502 82 82 82 0 0 534 1,780 1,246 78	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560 3,639	50.0% 35.0% 5268	gal/md.ft	18,822 31,621 19,000 CBP depth	18,822 50,443 50,443 50,443 50,443 50,860 0 46,728 125,231	lbs sand/md-ft	66 22 ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (
72.8   4.4 Above pump time (min)	WASATCH WASATC	5387	5386	8 4	24	30.3 Varied 0 500 500 500 500 500 500 500 500 500 5	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  «< Above pump time Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Pad Slickwater Ramp Flush (4-1/2)	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 70hume 22,430 74,765 52,336 3,293	9,035 39,150 60,230 63,669 60,230 0 22,430 97,195 149,530 152,823	215 717 502 82 82 82 0 0 534 1,780 1,246 78	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560 3,639	50.0% 35.0% 5268	37.3% 62.7% gal/md ft 0.00% 37.33% 62.7%	18,822 31,621 19,000 CBP depth 0 46,728 78,503	18,822 50,443 50,443 50,443 50,443 50,680 15,913 15,913 125,231 125,231	lbs sand/md ft 198	9 0 0 0 0 3 3 15
	WASATCH WASATC	5387	\$386 # of Peri	ssistage	) <b>24</b>	30.3 Varied 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Ramp Slickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  «< Above pump time Pumpin test ISIP and 5 min ISIP Slickwater Pad Slickwater Pad Slickwater Ramp Flush (4-1/2)	0.25 1 (min)	1	Slickwater	30,115 21,081 3,439 70hume 22,430 74,765 52,336 3,293	9,035 39,150 60,230 63,669 60,230 0 22,430 97,195 149,530 152,823	215 717 502 82 82 82 0 0 534 1,780 1,246 78	215 932 1,434 1,516 1,516 Flush depth 0 534 2,314 3,560 3,639	500% 35.0% 5268 15.0% 50.0%	37.3% 62.7% gal/md.ft ( 0.0% 37.3% 62.7%	18,822 31,621 19,000 CBP depth 0 46,728 78,503	18,822 50,443 50,443 50,443 50,443 50,680 0 46,728 125,231 125,231	lbs sand/md.ft 188	9 0 0 0 0 3 3 15
	WASATCH WASATC	5387	\$386 # of Peri	ssistage	24 24	Varied 0 0 50 50 50 50 50 50 50 50 50 50 50 50	Pumpin test ISIP and 5 min ISIP Stickwater Paul Stickwater Ramp Stickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP  **C Above pump time Pumpin test ISIP and 5 min ISIP Stickwater Paul Stickwater Paul Stickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP Stickwater Ramp Flush (4-1/2) ISIP and 5 min ISIP	0.25 1 (min)	1	Slickwater	30,115 21.081 3,439 7-colume 22,430 74,765 52,336 3,293	9,035 39,150 60,230 63,669 63,669 60,230 0 22,430 97,195 149,530 152,823 149,530	215 717 502 82 82 82 0 0 534 1,780 1,246 78	215 932 1,434 1,516 1,516 1,516 Flush depth 0 534 2,314 3,569 3,639 3,639	500% 35.0% 5268 15.0% 500% 35.0%	37.3% 62.7% gal/md.ft ( 0.0% 37.3% 62.7%	19,000 CBP depth 0 46,728 78,503	18,822 50,443 50,443 50,443 50,443 50,443 15,913 15,913 125,231 125,231 125,231	lbs sand/md.ft 168	27 99 0 0 0 0 0 0 33 15 67 22 0 0 0 0 0 0 29

Name NBU 1022-2D Perforation and CBP Summary

Stage	Zones	Perforations							
		Top, ft	Bottom, ft	SPF	Holes	Fracture Coverage			
1	MEOWEDDE	7400	74.04			7470.5	4-	74.00	
1	MESAVERDE	7192 7216	7194 7217	3	6	7172.5 7205.5	to	7196	
	MESAVERDE						to	7223	
	MESAVERDE	7287	7289	3	6	7272.5	to	7293	
	MESAVERDE	7342	7343	3	3	7334.5	to	7344.5	
	MESAVERDE	7383	7384	3	3	7375	to	7387.5	
	MESAVERDE	7396	7397	3	3	7388.5	to	7399	
	MESAVERDE								
	# of Perfs/stage				24	CBP DEPTH	7,084		
2	MESAVERDE	6902	6904	4	8	6887	to	6907.5	
	MESAVERDE	6931	6933	4	8	6922.5	to	6937	
	MESAVERDE	7052	7054	4	8	7042	to	7057	
	MESAVERDE								
	MESAVERDE								
	MESAVERDE								
	MESAVERDE								
	MESAVERDE								
	# of Perfs/stage				24	CBP DEPTH	5,844		
3	WASATCH	5640	5641	4	4	5638	to	5643.5	
	WASATCH	5704	5707	4	12	5692	to	5711.5	
	WASATCH	5812	5814	4	8	5788.5	to	5818	
	WASATCH								
	WASATCH								
	WASATCH								
	WASATCH								
	WASATCH								
	# of Perfs/stage				24	CBP DEPTH	5,418		
	_								
4	WASATCH	5268	5273	4	20	5235.5	to	5281	
	WASATCH	5387	5388	4	4	5378	to	5391	
	WASATCH								
	WASATCH								
	WASATCH								
	WASATCH								
	WASATCH								
	WASATCH								
	# of Perfs/stage				24	CBP DEPTH	5,080		
5	WASATCH	5044	5050	4	24	5004	to	5057	
	WASATCH	ļ							
	WASATCH	<b> </b>							
	WASATCH	<del>                                     </del>							
	WASATCH	<b> </b>							
	WASATCH	<b> </b>							
	WASATCH WASATCH								
	# of Perfs/stage				24	CBP DEPTH	4,994		

WINSERVE SURVEY CALCULATIONS												
Minimum Curvature Method												
Vertical Section Plane .00												
Vertical Section Referenced to offset from Wellhead: EW =.00 Ft , NS=.00 Ft												
Rectangular Coordinates Referenced to Wellhead												
Measured	Incl	Drift	TRUE	N-S	E-W	Vertical	CLOSURE	CLOSURE	Dogleg			
Depth	Angle	Direction	Vertical	FT	FT	Section	Distance	Direction	Severity			
FT	Deg	Deg	Depth			FT	FT	Deg	Deg/100			
0	0	0	0	0	0	0	0	0	0			
100	0.31	24.1	100	0.25	0.11	0.25	0.27	24.1	0.31			
200	0.24	293.73	200	0.58	0.03	0.58	0.58	2.89	0.39			
300	0.2	79.99	300	0.69	0.01	0.69	0.69	0.77	0.42			
400	0.36	12.27	400	1.03	0.25	1.03	1.06	13.54	0.34			
500	0.23	296.4	500	1.43	0.13	1.43	1.43	5.41	0.38			
600	0.24	68.79	600	1.59	0.15	1.59	1.6	5.4				
700	0.12	272.42	700	1.67	0.24	1.67	1.69	8.21	0.35			
800	0.17	104.48	800	1.64	0.28	1.64	1.66	9.7	0.29			
900	0.16	334.23	900	1.73	0.36	1.73	1.77	11.87	0.3			
1000	0.2	214.86	1000	1.71	0.2	1.71	1.72	6.76	0.31			
1100	0.06	40.23	1100	1.61	0.14	1.61	1.61	4.86	0.26			
1200	0.3	281.46	1199.99	1.7	-0.09	1.7	1.7	357.1	0.33			
1300	0.48	228.23	1299.99	1.47	-0.66	1.47	1.61	336.01	0.38			
1400	0.29	294.93	1399.99	1.3	-1.2	1.3	1.77	317.35	0.45			
1500	0.68	228.5	1499.99	1.01	-1.87	1.01	2.13	298.43	0.62			
1600	1.48	189.96	1599.97	-0.65	-2.54	-0.65	2.62	255.59	1.04			
1700	1.36	184.28	1699.94	-3.11	-2.85	-3.11	4.22	222.53	0.18			
1800	1.24	196.7	1799.91	-5.33	-3.25	-5.33	6.24	211.39	0.31			
1900	1.51	177.96	1899.89	-7.68	-3.51	-7.68	8.45	204.59	0.52			
2000	1.33	176.84	1999.85	-10.16	-3.4	-10.16	10.71	198.53	0.18			
2100	1.49	183.39	2099.82	-12.61	-3.42	-12.61	13.07	195.16	0.23			
2200	1.49	173.04	2199.79	-15.2	-3.34	-15.2	15.56	192.38	0.27			
2300	1.49	188.77	2299.76	-17.78	-3.38	-17.78	18.09	190.75	0.41			
2400	1.64	176.79	2399.72	-20.49	-3,49	-20.49	20.79	189.68	0.36			
2500	1.45	197.5	2499.68	-23.13	-3.79	-23.13	23.43	189.32	0.59			
2600	1.75	184.76	2599.65	-25.85	-4.3	-25.85	26.21	189.45	0.46			
2700	1.58	203.8	2699.6	-28.64	-4.98	-28.64						
2800	1.9	195.6	2799.56	-31.5	-5.99	-31.5	32.06	190.76				
2900	1.75	205.22	2899.51	-34.47	-7.08	-34.47		191.61	0.34			
3000	1.87	213.79	2999.46	-37.21	-8.64	-37.21	38.2	193.07	<del> </del>			
3200	1.84	214.32	3199.35	-42.57	-12.27	-42.57	44.31	196.07				
3400	2.17	198.57	3399.23	-48.82	-15.28	-48.82	51.15	197.38				
3600	2.52	189.37	3599.07	-56.74	-17.2	-56.74	59.29	196.87				
3800	2.21	199.25	3798.9	-64.72	-19.19	-64.72	67.51	196.52				
4000	2.31	213.21	3998.74	-71.73	-22.67	-71.73	75.23	197.54				
4200	2.12	217.93	4198.59	-78.03	-27.15	-78.03	82.61	199.19				
4400	1.79	213.14	4398.48	-83.56	-31.13	-83.56	89.17	200.44				
4600	2.11	200.5	4598.36	-89.62	-34.13	-89.62	95.9	200.85				
4800	1.86	212.62	4798.24	-95.81	-37.17	-95.81	102.76	201.21	0.24			
5000	1.68	202.16	4998.15	-101.25	-40.03	-101.25	108.88	201.57				
5200	1.86	213.82	5198.05	-106.67	-42.94	-106.67	114.98	201.93				
5400	1.85	234.85	5397.95	-111.22	-47.38	-111.22	120.89	203.08	0.34			
5600	2.07	268.99	5597.84	-113.14	-53.64	-113.14	125.21	205.36				
5800	2.39	320.31	5797.71	-110	-59.91	-110	125.25	208.58	0.98			

#### Acid Pickling and H2S Procedures (If Required)

#### \*\*PROCEDURE FOR PUMPING ACID DOWN TBG

WHEN FINDING SCALE IN TUBING THAT IS ACID SOLUBLE, ENSURE THAT PLUNGER EQUIPMENT IS REMOVED AND ABLE TO PUMP DOWN TBG. INSTALL A 'T' IN PUMP LINE W/2" VALVE THAT NALCO CAN TIE INTO. HAVE 60 BBLS 2% KCL MIXED W/ 10-15 GAL H2S SCAVENGER IN RIG FLAT TANK. (WE USED THE RIG FLAT TANK FOR MIXING CHEMICAL SO WE DIDN'T HAVE THE CHEMICAL IN ALL FLUIDS ON LOCATION, ONLY WHAT WE NEEDED TO PUMP DOWN HOLE)

- 1. PUMP 5-10 BBLS 2% KCL DOWN TBG (NALCO CANNOT PUMP AGAINST PRESSURE)
- 2. NALCO WILL PUMP 3 DRUMS HCL (31%) INTO PUMP LINE.
- 3. FLUSH BEHIND ACID WITH 10-15 BBL 2% KCL
- 4. PUMP 2—30 BBL 2% W/ H2S SCAVENGER DOWN TBG.
- 5. PUMP REMAINDER OF 2% W/ H2S SCAVENGER DOWN CASING AND SHUT WELL IN FOR MINIMUM OF 2 HRS.
- 6. OVER DISPLACE DOWN TBG AND CSG TO FLUSH ACID AND SCAVENGER INTO FORMATION
- 7. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

#### \*\* PROCEDURE FOR PUMPING H2S SCAVENGER WITHOUT ACID

PRIOR TO RIG MOVING ON OR AS RIG PULLS ONTO LOCATION. TEST CASING, TUBING AND SEPARATOR FOR H2S. IF FOUND MAKE SURE THAT PLUNGER SYSTEM IS REMOVED (IT IS POSSIBLE TO PUMP AROUND PLUNGERS BUT SOME WILL HAVE A STANDING VALVE IN SEATING NIPPLE).

- 1. MIX 10-15 GAL H2S SCAVENGER WITH 60-100 BBL 2% KCL IN RIG FLAT TANK.
- 2. PUMP 25 BBLS MIXTURE DOWN TUBING AND REST DOWN CASING. SHUT WELL IN FOR 2 HOURS.
- 3. IF WELL HAS PRESSURE AFTER 2 HOURS RETEST CASING AND TUBING FOR H2S.
- 4. FLUSH TUBING AND CASING PUSHING H2S SCAVENGER INTO FORMATION.
- 5. MONITOR TUBING FOR FLOW AND CASING FOR H2S NOW AS POOH W/ TUBING.

<sup>\*\*</sup> As per APC standard operating procedure, APC foreman will verify ALL volumes pumped and record on APC Volume Report Form

# **Key Contact information**

Completion Engineer

Rachael Hill: 303-907-9167, 720-929-6599

Production Engineer

Travis Hansell: 435-790-6903, 435-781-7052

Completion Supervisor Foreman

Jeff Samuels: 435-828-6515, 435-781-7046

Completion Manager

Jeff Dufresne: 720-929-6281, 303-241-8428

Vernal Main Office

435-789-3342

# Emergency Contact Information—Call 911

Vernal Regional Hospital Emergency: 435-789-3342

Police: (435) 789-5835

Fire: 435-789-4222

#### STATE OF UTAH AMENDED REPORT FORM 8 DEPARTMENT OF NATURAL RESOURCES (highlight changes) DIVISION OF OIL, GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22651 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG 1a. TYPE OF WELL: 7. UNIT or CA AGREEMENT NAME GAS VELL OIL OTHER UTU63047A b. TYPE OF WORK: 8. WELL NAME and NUMBER: RE-ENTRY DIFF. RESVR. WELL RECOMPLETION NBU 1022-02D OTHER 2. NAME OF OPERATOR: API NUMBER KERR MCGEE OIL & GAS ONSHORE, L.P. 4304739955 PHONE NUMBER: 10 FIELD AND POOL, OR WILDCAT 3. ADDRESS OF OPERATOR: STATE CO ZIP 80217 (720) 929-6304 NATURAL BUTTES P.O.BOX 173779 CITY DENVER 11. QTR/QTR, SECTION, TOWNSHIP, RANGE, 4. LOCATION OF WELL (FOOTAGES) AT SURFACE: NWNW 1090 FNL: 990 FWL S2,T10S,R22E NWNW 2 10S 22E S AT TOP PRODUCING INTERVAL REPORTED BELOW: 13. STATE 12. COUNTY AT TOTAL DEPTH: **UTAH** UINTAH 14. DATE SPUDDED: 16. DATE COMPLETED: 17. ELEVATIONS (DF, RKB, RT, GL): 15. DATE T.D. REACHED: READY TO PRODUCE 🗸 ABANDONED 3/2/2009 11/12/2011 4975 GL 1/17/2009 19. PLUG BACK T.D.: MD 8,690 21. DEPTH BRIDGE 18. TOTAL DEPTH: MD 7,427 8,740 20. IF MULTIPLE COMPLETIONS, HOW MANY? PLUG SET: TVD 8.735 TVD 8,685 TVD 22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) NO 🔽 YES [ WAS WELL CORED? (Submit analysis) BHV-DSN/SD/ACRT/CBL ио 🔽 YES WAS DST RUN? (Submit report) DIRECTIONAL SURVEY? NO 🗸 YES (Submit copy) 24. CASING AND LINER RECORD (Report all strings set in well) STAGE CEMENTER **CEMENT TYPE &** SLURRY BOTTOM (MD) AMOUNT PULLED TOP (MD) CEMENT TOP \*\* WEIGHT (#/ft.) HOLE SIZE SIZE/GRADE DEPTH NO. OF SACKS VOLUME (BBL) 20" 36.7# 0 40 28 36# 0 2.249 675 0 12 1/4" 9.5/8 J - 550 8,733 7 7/8" 11.6# 1,585 500 4 1/2 I-80 25. TUBING RECORD PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) DEPTH SET (MD) SIZE 2 3/8 5.027 26. PRODUCING INTERVALS 27. PERFORATION RECORD TOP (TVD) BOTTOM (MD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) NO. HOLES PERFORATION STATUS FORMATION NAME TOP (MD) SIZE 5,044 5.814 0.36 72 Open 🗸 (A) WASATCH 5,044 5,814 Squeezed 7.397 6.902 7.397 0.36 48 Squeezed (B) MESAVERDE 6,902 Open Open Squeezed (C) Open Squeezed (D) 28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL 5044 - 7397 PUMP 9,462 BBLS SLICK H2O & 259,906 LBS 30/50 OTTAWA SAND 5 STAGES

(CONTINUED ON BACK)

GEOLOGIC REPORT

CORE ANALYSIS

DST REPORT

OTHER:

SEP 0 5 2012

RECEIVED

DIRECTIONAL SURVEY

30. WELL STATUS:

PROD

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS

SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

31. INITIAL PRO	DDUCTION			INT	ERVAL A (As sho	wn in item #26)				
DATE FIRST PR	DATE FIRST PRODUCED: TEST 11/12/2011 11/		:	HOURS TESTED	D:	TEST PRODUCTIO		GAS - MCF:	WATER - BBL:	PROD. METHOD:
11/12/201	l1	11/13/2	2011		24	RATES: →	0	1,749	7,332	FLOWING
CHOKE SIZE:	TBG. PRESS.	CSG. PRES	S. API GRAVITY	BTU – GAS	GAS/OIL RATIO			GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
20/64	900	1,100	)			RATES: →	0	1,749	7,332	PROD
				INT	ERVAL B (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATE	:	HOURS TESTED	D:	TEST PRODUCTIO	N OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
				1		RATES: →				
CHOKE SIZE:	TBG. PRESS.	CSG. PRES	S. API GRAVITY	BTU - GAS	GAS/OIL RATIO		ON OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
						RATES: →				<u> </u>
				INT	ERVAL C (As sho	wn in item #26)				
DATE FIRST PR	ODUÇED:	TEST DATE	:	HOURS TESTED	D:	TEST PRODUCTIO	N OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
				l		RATES: →				
CHOKE SIZE:	TBG. PRESS.	CSG. PRES	S. API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO	ON OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
					<u> </u>	RATES: →				
				INT	ERVAL D (As sho	wn In Item #26)				
DATE FIRST PR	ODUCED:	TEST DATE		HOURS TESTER	D;	TEST PRODUCTIO	N OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
						RATES: →			1	<u> </u>
CHOKE SIZE:	TBG. PRESS.	CSG. PRES	S. API GRAVITY	BTU – GAS	GAS/OIL RATIO		ON OIL - BBL:	GAS MCF:	WATER - BBL:	INTERVAL STATUS:
					<u>                                     </u>	RATES: →			<u> </u>	<u> </u>
32. DISPOSITIO	N OF GAS (Sold	, Used for Fue	l, Vented, Etc.)							
							······································	· · · · · · · · · · · · · · · · · · ·		
33. SUMMARY	OF POROUS ZO	NES (include A	(quifers):				34. FORMATION	(Log) MARKERS:		
Show all importa	nt zones of poros	ity and content	thereof: Cored interv	als and all drill-stem	tests, including de	epth interval				
tested, cusnion t	isea, time tool ope	en, tiowing and	shut-in pressures and	recoveries.						
		Тор	Bottom	5			-	Nome		Тор
Formatio	on	(MD)	(MD)	Descrip	tions, Contents, etc	3.		Name		(Measured Depth)
						1.11111				
	İ						GREEN R	IVER	1	1,145
			]				BIRD'S NE			1,368
							MAHOGAN			1,874
		ŀ							1	4,205
							WASATCH	•		•
							MESAVEF	RDE		6,519
									1	
35. ADDITIONA	L REMARKS (Inc	dude plugging	procedure) ind perforation re	port. New reco	mpletion perfo	rations are: Wa	satch: 5044-58	14 and Mesave	rde: 6902-7397	7'; existing
perforations: Me	esaverde: 74	44-8676'. A	n isolation plug	separating the	new perforation	ns from the old;	perforations is	set at 7427'. Th	ne sundry for fir	rst sales submitted
11/15/11 stating	g that new an	d old perfor	ations were com	mingled was in	error. The ne	w and old zones	s have never b	een commingled	d. A sundry wil	I be submitted
before the iso p	lug is drilled	out. Produc	ction is from new	perforations						

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) CARA MAHLER

SIGNATURE DATE REGULATORY ANALYST

DATE 8 27 20 12

This report must be submitted within 30 days of

- completing or plugging a new well
- · drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- \* ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- \*\*!TEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

## **US ROCKIES REGION**

# **Operation Summary Report**

 Well: NBU 1022-2D
 Spud Conductor: 1/17/2009
 Spud Date: 1/26/2009

 Project: UTAH-UINTAH
 Site: NBU 1022-2D
 Rig Name No: MILES 3/3

 Event: RECOMPL/RESEREVEADD
 Start Date: 11/7/2011
 End Date: 11/11/2011

Active Datum: RKB @4,993.00usft (above Mean Sea

UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0

Level)	r Year	00200455 / 1 <sup>07</sup> 7104	ar kan za a Hi			FRE 2007		₽1 022cm (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The State of the S
Date	1200	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/7/2011	13:00	- 17:00 - 7:15	4.00	COMP	30 48	A	P	(usity a second	ROAD RIG AND EQUIP FROM BONANZA 1023-8K TO LOC, SPOT AND RUSU, SPOT EQUIP, LAY PMP LINES, LEFT WELL OPEN TO SALES, SDFN JSA- ND/NU, UNLAND TBG, POOH.
		- 9:00	1.75	COMP	30	F	P		FTP 175, FCP 175, SURFACE CSG OPEN. PMP 10 BBLS DOWN TBG. PMP 30 BBLS DOWN CSG. ND WH. CLEAN UP THREADS IN HANGER (SCALE). PU ON TBG, FREE. RELAND HANGER. NU BOP. RU FLOOR.
	9:00	- 11:00	2.00	COMP	31	I	Р		UNLAND TBG FROM 8150'. LD 4" 10K HANGER. POOH AS SB 196-JTS AND LD 62-JTS. BTM 1-1/2 JTS HAD SCALE IN ID (3/4" HOLE THRU TBG). LD XN.
	11:00	- 13:00	2.00	COMP	30	F	Р		RD FLOOR. ND BOP. NU FRAC VALVE. RU FLOOR. WAIT ON JW EWL.
	13:00	- 15:30	2.50	COMP	34	ı	₽		JW EWL AOL. DID NOT HAVE FLANGE FOR FRAC VALVE. PMP 40 BBLS DOWN CSG. RD FLOOR. ND FRAC VALVES. NU BOP. RU FLOOR. RIH W/ 3.75" GR/JB. GOOD. RIH W/ HALCO 8K CBP AND SET AT 7427'. RD EWL.
14/0/0044		- 16:30	1.00	COMP	30	F	Р		RD FLOOR. ND BOP. NU FRAC VALVES. RU FLOOR. FILL CSG W/ 60 BBLS. PRES TEST TO 2500#. GOOD. BLEED OFF. DRAIN EQUIP. SDFN
11/9/2011		- 7:15 - 12:00	0.25 4.75	COMP	48 33	С	P P		JSA- PRES TESTING BLEED OFF CSG. FILL CSG W/ 5 BBLS TMAC. ENCLOSE FRAC VALVES AND HOOK UP HEATER RU B&C. PRES TEST.
									TEST 1140# FOR 15 MIN. LOST 11 PSI. TEST 3650# FOR 15 MIN. LOST 15 PSI. TEST 6270#. FOR 30 MIN. LOST 40 PSI. NO COMMUNICATION TO SURFACE.
44/40/2044	7:00	- 7:4 <i>E</i>	0,25	COMP	48		P		BLEED OFF, RD B & C. DRAIN EQUIP, SWI AND SDFN.
11/10/2011	7:15	- 7:15 - 9:00	1.75	COMP	37	В	P		JSA- PERF AND FRAC MIRU SUPERIOR AND JW WIRELINE. RIH W/ 3-1/8" GUN (23 GRAM, 40" PENT, 3 SPF ON 120*, .36 EOD) AND PERF 7397' - 7192' AS PER PROCEEDURE.
	9:00	- 10:50	1.83	COMP	36	В	Р		PRES TEST SURFACE LINES TO 7200PSI. GOOD. STAGE #1- OPEN WELL- SICP 175 PSI. BRK 3291 PSI AT 3.9 BPM, ISIP 2614, FG .80. PMP 100 BBLS SLK WTR, 48.3 BPM @ 5495 PSI = 84% 20/24 PERFS OPEN. MP 5116, MR 50.7, AP 4783, AR 40.6, FG .77, ISIP 2440, NPI -174. BBLS PMP 1390 SLK WTR, 23,176# 30/50 PROP.

12/13/2011

11:01:25AM

## US ROCKIES REGION

							EGION ary Report
Well: NBU 1022-	-2D		Spud Co	nductor: 1	1/17/2009	) )	Spud Date: 1/26/2009
Project: UTAH-U			<del></del>	J 1022-20		•	Rig Name No: MILES 3/3
Event: RECOMP	L/RESEREVE/	ADD	Start Dat	te: 11/7/20	)11	-	End Date: 11/11/2011
		ısft (above Mean S		1		E/2/0/NWI	NW/6/PM/N/1,090.00/W/0/990.00/0/0
Date	Time Start-En	Duration d (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	10:50 - 11		COMP	37	В	P	STAGE #2 RIH HALCO 8K CBP AND W/ 3-1/8" GUN (23 GRAM, 40" PENT, 4 SPF ON 90*, .36 EOD). SET CBP AT 7089' AND PERF 6902'-7054' AS PER PROCEEDURE.
	11:50 - 13:	1.17	COMP	36	В	Р	STAGE #2- OPEN WELL- SICP 914 PSI. BRK 3207 PSI AT 3.2 BPM, ISIP 1848, FG .70. PMP 100 BBLS SLK WTR, 33.3 BPM @ 5460 PSI = 60% 14/24 PERFS OPEN. MP 6086, MR 40.7, AP 5219, AR 29.4, FG .77, ISIP 2304, NPI 456. BBLS PMP 1400 SLK WTR, 27,141# 30/50.
	13:00 - 13:	55 0.92	COMP	37	В	₽	STAGE #3 RIH HALCO 8K CBP AND W/ 3-1/8" GUN (23 GRAM, 40" PENT, 4 SPF ON 90*, .36 EOD). SET CBP AT 5844' AND PERF 5814'-5640' AS PER PROCEEDURE
	13:55 - 14:	45 0.83	COMP	36	В	Р	STAGE #3- OPEN WELL- SICP 650 PSI. BRK 3647 PSI AT 3.6 BPM, ISIP 1145, FG .64. PMP 100 BBLS SLK WTR, 46.6 BPM @ 5072 PSI = 61% 15/24 PERFS OPEN.
	14:45 - 15:	30 0.75	СОМР	37	В	P <sup>.</sup>	MP 5530, MR 51.2, AP 4329, AR 50.5, FG .70, ISIP 1460, NPI 315. BBLS PMP 1428 SLK WTR, 43,053# 30/50. STAGE #4 RIH HALCO 8K CBP AND W/ 3-1/8" GUN (23 GRAM, 40" PENT, 4 SPF ON 90*, .36 EOD). SET CBP AT 5418' AND PERF 5388'-5268' AS PER
	15:30 - 16:	30 1.00	СОМР	36	В	Р	PROCEEDURE.  STAGE #4- OPEN WELL- SICP 579 PSI, BRK 3289 PSI AT 3.8 BPM, ISIP 1039, FG .63. PMP 100 BBLS SLK WTR, 50.3 BPM @ 4609 PSI = 70% 17/24 PERFS OPEN. MP 5090, MR 51.6, AP 3423, AR 50.9, FG .70, ISIP 1367, NPI 337.
	16:30 - 17:	00 0.50	COMP	37	В	Р	BBLS PMP 1694 SLK WTR, 50,447# 30/50.  STAGE #5 RIH HALCO 8K CBP AND W/ 3-1/8"  GUN (23 GRAM, 40" PENT, 4 SPF ON 90*, .36 EOD).  SET CBEAL 156
	17:00 - 20:	00 3.00	COMP	36	В	P	PROCEEDURE.  STAGE #5- OPEN WELL- SICP 250 PSI. BRK 1605 PSI AT 3.7 BPM, ISIP 169, FG.47. CONFER WITH RACHAEL HILL. SAID TO GO AHEAD AND FRAC. PMP 100 BBLS SLK WTR, 52.1 BPM @ 2509 PSI = 100% 24/24 PERFS OPEN. MP 2779, MR 53, AP 2540, AR 52.4, FG.51, ISIP 352, NPI 315. BBLS PMP 3550 SLK WTR, 116,089# 30/50. RAN OUT OF WTR. ABLE TO GET FLUSHED BUT SHORT 9142# SAND. WELL WENT ON VACUUM. DID NOT RUN KILL PLUG.
11/11/2011	7:00 - 7:1	15 0.25	COMP	48		P	RIG DOWN SUPERIOR AND JW EWL. JSA- RIH, D/O PLUGS, LD TBG, LAND TBG.
	7:15 - 8:3		COMP	30	F	P	SICP WELL STILL ON VACUUM, RD FLOOR, ND
							FRAC VALVES, NU BOP. RU FLOOR.

12/13/2011

11:01:25AM

## **US ROCKIES REGION**

Vell: NBU 1022-2	2D		Spud Cor	nductor: 1	1/17/2009		Spud Date: 1/26	/26/2009				
roject: UTAH-UI	INTAH		Site: NBU	1022-20	)			Rig Name No: MILES 3/3				
vent: RECOMP	L/RESEREVEADD		Start Date	e: 11/7/20	11/7/2011 UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/			End Date: 11/11/2011				
ctive Datum: Rk	(B @4,993.00usft (ab	ove Mean Se	а	UWI: 0/				00/W/0/990.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
	8:30 - 11:00	2.50	COMP	31	1	Р		MU 3-7/8" MILL, PUMP OPEN BIT SUB, 1.87" XN. RIH AS TALLY W/ 160-JTS 2-3/8" J-55 TBG. TAG SAND AT 5041'. RU DRLG EQUIP.				
	11:00 - 19:00 8.00			44	С	P		START N2/FOAM DOWN TBG TO GET CIRC. D/O PLUGS.				
								#1- C/O 45' SAND TO CBP AT 5080'. D/O IN 18 MIN W/ FOAM. 300# INC. RIH. #2- C/O 33' SAND TO CBP AT 5418'. D/O IN 26 MIN W/ FOAM AND RIG PMP AT 1 BPM. 600# INC. RIH. #3- C/O 30' SAND TO CBP AT 5844'. D/O IN 11 MIN W/ WTR. 400# INC. RIH. #4- C/O 35' SAND TO CBP AT 7084'. D/O IN 8 MIN W/ WTR. 100# INC. RIH. ISOLATION PLUG AT 7427'. C/O 20' SAND TO 7411' W/ 235-JTS IN. CIRC CLEAN.  RD PWR SWIVEL. POOH AS LD 76-JTS. PU 4" 10K HANGER. LUB IN AND LAND 159-JTS 2-3/8" J-55 TBG W/ EOT AT 5026.77'. RD FLOOR. ND BOP. NU WH. PMP OPEN BIT SUB AT 2000#. HOOK UP TO HAL 9000#. TURN OVER TO FBC AND SALES. SICP 1000. TBG 0. SURFACE OPEN. RDSU AND MOVE OFF.				
								TBG DETAIL KB 18.00 4" 10K HANGER .83 159-JTS 2-3/8" J-55 5004.89 1.87" XN NIPPLE WITH 3.05 PMP OPEN SUB AND MILL ON BTM. EOT 5026.77				

12/13/2011

11:01:25AM

## 1 General

#### 1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

### 1.2 Well/Wellbore Information

Well	NBU 1022-2D	Wellbore No.	ОН
Well Name	NBU 1022-2D	Wellbore Name	NBU 1022-2D
Report No.	1	Report Date	11/10/2011
Project	UTAH-UINTAH	Site	NBU 1022-2D
Rig Name/No.	MILES 3/3	Event	RECOMPL/RESEREVEADD
Start Date	11/7/2011	End Date	11/11/2011
Spud Date	1/26/2009	Active Datum	RKB @4,993.00usft (above Mean Sea Level)
UWI	0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0	0/990.00/0/0	

#### 1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

### 1.4 Initial Conditions

## 1.5 Summary

Fluid Type	KCL WATER	Fluid Density	8.40 (ppg)	Gross Interval	5,044.0 (usft)-7,397.0 (usft	Start Date/Time	11/10/2011 11:36AM
Surface Press	0.00 (psi)	Estimate Res Press		No. of Intervals	15	End Date/Time	11/10/2012 11:37AM
TVD Fluid Top	0.0 (usft)	Fluid Head	7,397.0 (usft)	Total Shots	120	Net Perforation Interval	32.00 (usft)
Hydrostatic Press	3,227.79 (psi)	Press Difference	3,227.79 (psi)	Avg Shot Density	3.75 (shot/ft)	Final Surface Pressure	
Balance Cond	OVER BALANCED					Final Press Date	

## 2 Intervals

#### 2.1 Perforated Interval

Date	Formation/ CC Reservoir (us	MD Top (usft)			Misfires/ Diamete Add. Shot r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Reason Weight (gram)	Misrun
11/10/201	WASATCH/	5,044.0	5,050.0	4.00	0.360 E	EXP/	3.375	90.00		23.00 PRODUCTIO	h-th-th-th-th-th-th-th-th-th-th-th-th-th
1										· N	
4:56PM											

### 2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Reason Weight (gram)	Misrun
11/10/201 1	WASATCH/		1	5,268.0	5,273.0		-41	0.360	EXP/	3.375	90.00		23.00 PRODUCTIO N	
3:29PM 11/10/201	WASATCH/	i		5,387.0	5,388.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO	
	WASATCH/			5,640.0	5,641.0	4.00		0.360	EXP/	3.375	90.00	<del>.</del>	N 23.00 PRODUCTIO	
1 1:58PM 11/10/201	WASATCH/			5,704.0	5,707.0	4.00		0.360	EXP/	3.375	90.00		N 23.00 PRODUCTIO	
1 1:57PM	:												N	
11/10/201 1 1:57PM	WASATCH/			5,812.0	5,814.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO N	
11/10/201 1	MESAVERDE/			6,902.0	6,904.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO N	
1	MESAVERDE/			6,931.0	6,933.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO N	
1	MESAVERDE/	ai .		7,052.0	7,054.0	4.00		0.360	EXP/	3.375	90.00	<u></u>	23.00 PRODUCTIO N	
1	MESAVERDE/			7,192.0	7,194.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
2	MESAVERDE/	£		7,216.0	7,217.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
1	MESAVERDE/			7,287.0	7,289.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
11:36AM 11/10/201 1	MESAVERDE/		 	7,342.0	7,343.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
11:36AM 11/10/201 1	MESAVERDE/			7,383.0	7,384.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
11.36AM 11/10/201	MESAVERDE/			7,396.0	7,397.0	3.00		0.360	EXP/	3.375	120.00		N 23.00 PRODUCTIO	
11:36AM							:						N	

#### AMENDED REPORT STATE OF UTAH FORM 8 DEPARTMENT OF NATURAL RESOURCES (highlight changes) 5. LEASE DESIGNATION AND SERIAL NUMBER: DIVISION OF OIL, GAS AND MINING ML 22651 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG 7. UNIT or CA AGREEMENT NAME 1a. TYPE OF WELL: GAS 7 WELL DRY OTHER UTU63047A WELL NAME and NUMBER b. TYPE OF WORK: DEEP-DIFF. RESVR. NBU 1022-02D NEW HORIZ. RE-ENTRY RECOMPLETION OTHER 9. API NUMBER: 2. NAME OF OPERATOR KERR MCGEE OIL & GAS ONSHORE, L.P. 4304739955 10 FIELD AND POOL, OR WILDCAT PHONE NUMBER: 3. ADDRESS OF OPERATOR: CO 80217 (720) 929-6304 NATURAL BUTTES **DENVER** P.O.BOX 173779 11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 4. LOCATION OF WELL (FOOTAGES) AT SURFACE: NWNW 1090 FNL; 990 FWL S2,T10S,R22E NWNW 2 10S 22E S AT TOP PRODUCING INTERVAL REPORTED BELOW: 12. COUNTY 13. STATE **UTAH** UINTAH AT TOTAL DEPTH: 15. DATE T.D. REACHED: 16. DATE COMPLETED: 17. ELEVATIONS (DF, RKB, RT, GL): 14. DATE SPUDDED: READY TO PRODUCE 🗸 ABANDONED 4975 GL 1/17/2009 11/12/2011 3/2/2009 19. PLUG BACK T.D.: MD 8,690 21. DEPTH BRIDGE MD 7,427 18. TOTAL DEPTH: MD 8.740 20. IF MULTIPLE COMPLETIONS, HOW MANY? PLUG SET TVD TVD 8,685 TVD 8,735 22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) ио 🔽 YES (Submit analysis) WAS WELL CORED? BHV-DSN/SD/ACRT/CBL NO 🔽 WAS DST RUN? YES [ (Submit report) DIRECTIONAL SURVEY? NO 🗸 YES [ (Submit copy) 24. CASING AND LINER RECORD (Report all strings set in well) STAGE CEMENTER DEPTH CEMENT TYPE & NO. OF SACKS SLURRY AMOUNT PULLED TOP (MD) BOTTOM (MD) CEMENT TOP \*\* SIZEIGRADE WEIGHT (#/ft.) HOLE SIZE VOLUME (BBL) 36.7# 0 40 28 20" STL 14" 0 2.249 675 0 36# 12 1/4" 9 5/8" J-55 8.733 500 0 1,585 7 7/8" 4 1/2" 1-80 11.6# 25. TUBING RECORD PACKER SET (MD) PACKER SET (MD) DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) SIZE SIZE DEPTH SET (MD) 2 3/8" 5,027 27. PERFORATION RECORD 26. PRODUCING INTERVALS PERFORATION STATUS FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES 5,044 5,044 5,814 0.36 72 Open 🔽 Sougezed 5,814 (A) WASATCH 0.36 48 6.902 7,397 6,902 7,397 Open Squeezed (B) MESAVERDE Open Squeezed (C) Squeezed (D) 28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. AMOUNT AND TYPE OF MATERIAL DEPTH INTERVAL PUMP 9,462 BBLS SLICK H2O & 259,906 LBS 30/50 OTTAWA SAND 5044 - 7397 5 STAGES 30. WELL STATUS: 29. ENCLOSED ATTACHMENTS: GEOLOGIC REPORT DST REPORT DIRECTIONAL SURVEY ELECTRICAL/MECHANICAL LOGS **PROD** CORE ANALYSIS OTHER: SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

31. INITIAL PRO	DUCTION				INTE	ERVAL A (As show	vn in item #26)				
DATE FIRST PRO	ODUCED:	TEST DAT	TE:		HOURS TESTED	);	TEST PRODUCTION	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
11/12/201	1	11/13	3/2011	1	2	24	RATES: →	0	1,749	7,332	FLOWING
CHOKE SIZE: 20/64	TBG. PRESS.	CSG. PRE		API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	N OIL-BBL:	GAS - MCF: 1,749	WATER - BBL: 7,332	INTERVAL STATUS: PROD
		1	1		INTE	ERVAL B (As shor	vn in item #26)	<del></del>		<u></u>	
DATE FIRST PRO	ODUCED:	TEST DA	TE:		HOURS TESTED	<del> </del>	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRI	ESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	N OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
		<del></del>	1		INTE	ERVAL C (As sho	wn in item #26)	······································	<del></del>		
DATE FIRST PR	ODUCED:	TEST DA	7E:		HOURS TESTED	);	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRI	ESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	N OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
·····					INTI	ERVAL D (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DA	TE:		HOURS TESTED	);	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PR	ESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO RATES: →	N OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (Sole	l, Used for F	uel, Ven	ited, Etc.)	<u> </u>						
33. SUMMARY	OF POROUS ZO	NES (Includ	e Aquife	ers):			1	34. FORMATION	(Log) MARKERS:		
Show all imports	nt zones of noros	ity and conte	nts there	eof: Cored inte	ervals and all drill-stem	tests, including de	epth interval				
tested, cushion u	ised, time tool op	en, flowing a	nd shut-i	in pressures a	nd recoveries.						
	<del></del>	Тор	Bott	tom	Donarial	tions, Contents, etc			Name		Тор
Formation	on	(MĎ)	(M	D)	Descript	ilotio, Cornerito, etc	,	(Measured D			(Measured Depth)
								GREEN RI			1,145
				ĺ				BIRD'S NE			1,368
								MAHOGAN			1,874
				1			ı	WASATCH			4,205
								MESAVER	RDE	-	6,519
				1							
				ł							
35. ADDITIONA	L REMARKS (In	clude pluga	ing proc	edure) .		1.0		-4-b, FO44 FO	d 4 and Manager		71. aviation
ind attached t	he recomplet	tion histor	y and p	oertofation	report. New reco	mpietion perto new perforatio	orations are: vvas	erforations is	set at 7427'. Th	ne sundry for fi	rst sales submitted
11/15/11 statin	esaverue. /- a that new ar	nd old peri	foration	ns were co	mmingled was in	error. The ne	w and old zones	have never be	een commingle	d. A sundry w	ill be submitted
pefore the iso	olug is drilled	out. Proc	duction	is from ne	w perforations				_	•	
36. I hereby ce	rtify that the for	egoing and a	attached	information	is complete and corr	ect as determined	from all available re	cords.			
	SE PRINT) CA	RA MAI	HI FR	₹			TITLE REC	GULATORY	ANALYST		
NAME (PLEAS	SE PRINT)	1 V IVIA	·				HILE INC		,	(	
SIGNATURE			<u> </u>				DATE	7.12	7/20	1	

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- · recompleting to a different producing formation
- · reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
   drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- \* ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- \*\* ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

801-359-3940 Fax:

(5/2000)

	STATE OF UTAH		FORM 9		
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22651		
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal l n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-02D		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.	9. API NUMBER: 43047399550000			
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1090 FNL 0990 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section:	STATE: UTAH				
11. CHECH	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
9/6/2012	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN :	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION S	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT	□ WATER SHUTOFF □ S	SI TA STATUS EXTENSION	APD EXTENSION		
Report Date:		OTHER	OTHER:		
The operator had completion report of submitted the existic commingled. At this	completed operations. Clearly show all peas performed the recompletion and the subject well. When the coing perforations and the new peas time we would like to drill out prations. Please see attached process.	and submitted a ompletion report was erforations were not the isolation plug to	Approved by the Utah Division of Oil, Gas and Mining  Date: October 03, 2012		
			by: Or ( C. July)		
NAME (PLEASE PRINT) Cara Mahler	<b>PHONE NUMBER</b> 720 929-6029	TITLE Regulatory Analyst I			
SIGNATURE N/A		<b>DATE</b> 9/6/2012			



# **NBU 1022-2D**

**ISOLATION PLUG DRILL-OUT** 

GREATER NATURAL BUTTES
SECTION 2, T10S R22E
43-047-35143
UINTAH, UT

PREPARED BY: HEATH POTTMEYER



# **CONTACT INFORMATION**

FOREMAN	<b>Trevor Hoopes</b>	435-828-8916
LEAD OPERATOR	Kyler Lance	435-828-8938
OPERATOR	Leon Hemphill	435-828-8698
OPERATOR	Josh Johnson	435-823-4152
ENGINEER	<b>Heath Pottmeyer</b>	740-525-3445

# **DEPTHS & TUBULARS**

KBE: 4993'
GLE: 4975'
TD: 8740'
PBTD: 8700'

Tubular	Drift	Collapse	Burst	Capacitie	S		
	inches	Psi	Psi	Gal./ft.	Cuft/ft.	Bbl./ft.	
2.375" 4.7# L-80	1.901	11780	11200	0.1626	0.02173	0.00387	
tbg.							
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.01554	
csg							
Annular Capacities							
2.375" tbg. X 4.5" 1	L1.6# csg	0.4226	0.0565	0.01006			



# **PERFORATIONS**

Legal Well		MD Top	MD Base		
Name	Date	(ft)	(ft)	SPF	Stage
	Cur	rent EOT @ ~	5009'	<u>,                                    </u>	
NBU 1022-2D	11/10/2011	5,044.00	5,050.00	4	R5
NBU 1022-2D	11/10/2011	5,268.00	5,273.00	4	R4
NBU 1022-2D	11/10/2011	5,387.00	5,388.00	4	R4
NBU 1022-2D	11/10/2011	5,640.00	5,641.00	4	R3
NBU 1022-2D	11/10/2011	5,704.00	5,707.00	4	R3
NBU 1022-2D	11/10/2011	5,812.00	5,814.00	4	R3
NBU 1022-2D	11/10/2011	6,902.00	6,904.00	4	R2
NBU 1022-2D	11/10/2011	6,931.00	6,933.00	4	R2
NBU 1022-2D	11/10/2011	7,052.00	7,054.00	4	R2
NBU 1022-2D	11/10/2011	7,192.00	7,194.00	3	R1
NBU 1022-2D	11/10/2012	7,216.00	7,217.00	3	R1
NBU 1022-2D	11/10/2011	7,287.00	7,289.00	3	R1
NBU 1022-2D	11/10/2011	7,342.00	7,343.00	3	R1
NBU 1022-2D	11/10/2011	7,383.00	7,384.00	3	R1
NBU 1022-2D	11/10/2011	7,396.00	7,397.00	3	R1
	Isola	ation Plug @ '	~ 7427'		
NBU 1022-2D	10/12/2009	7,444.00	7,446.00	2	4
NBU 1022-2D	10/12/2009	7,473.00	7,475.00	2	4
NBU 1022-2D	10/12/2009	7,582.00	7,584.00	4	4
NBU 1022-2D	10/12/2009	7,642.00	7,645.00	3	4
NBU 1022-2D	10/12/2009	7,758.00	7,761.00	4	4
NBU 1022-2D	10/12/2009	7,868.00	7,871.00	3	3
NBU 1022-2D	10/12/2009	7,952.00	7,955.00	4	3
NBU 1022-2D	10/12/2009	7,994.00	7,996.00	3	3
NBU 1022-2D	10/12/2009	8,009.00	8,011.00	4	3
NBU 1022-2D	10/12/2009	8,052.00	8,054.00	4	3
	N	ew EOT @ ~ 8	3148'		
NBU 1022-2D	10/12/2009	8,190.00	8,192.00	3	2
NBU 1022-2D	10/12/2009	8,239.00	8,241.00	3	2
NBU 1022-2D	10/12/2009	8,286.00	8,288.00	3	2
NBU 1022-2D	10/12/2009	8,334.00	8,340.00	4	2
NBU 1022-2D	10/12/2009	8,666.00	8,676.00	4	1
		PBTD @ ~ 870	00'		



# **PROCEDURE**

- MIRU, NDWH, & NUBOP.
- Un-land tubing. Current EOT +/- 5009'.
- POOH and inspect the tubing. If scaled or damaged joints are found, scan and break
  each connection to visually inspect each pin and upset. Once good pipe integrity is
  reestablished, the visual inspection of each connection may be discontinued based
  on personal judgment. LD all scaled or damaged joints.
- Take solid samples (inside & outside of tubing), if available, and submit to engineer.
- RIH with POBS & 3.875" mill, mill isolation plug @ +/- 7427', & clean out to PBTD +/-8700'.
- Land tubing with seat nipple at +/- **8148'**. Pump off bit and bit sub. Broach full ID to EOT. Ensure that broach is 1.90" OD.
- Drop a standing valve and pressure test tubing to 500 psi. If pressure holds, retrieve the standing valve. If test fails, call engineer to discuss.
- NDBOP, NUWH, & notify CDC, Foreman, & Operators of RDMO.

Sundry Number: 63371 API Well Number: 43047399550000

	STATE OF UTAH		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22651		
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 1022-02D	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.	<b>9. API NUMBER:</b> 43047399550000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-	9. FIELD and POOL or WILDCAT: 6 INATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1090 FNL 0990 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 02 Township: 10.0S Range: 22.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN [	FRACTURE TREAT	☐ NEW CONSTRUCTION
5/7/2015	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: TUBING FAILURE
40 DECORUDE PROPOSED OR		Lord Lord Lot Valled Brown Lot	
A WORKOVER FOR 1	COMPLETED OPERATIONS. Clearly show all FUBING FAILURE HAS BEEN COTHE ATTACHED OPERATIONS	MPLETED ON THE NBU	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 21, 2015
NAME (PLEASE PRINT) Doreen Green	<b>PHONE NUMBE</b> 435 781-9758	R TITLE Regulatory Analyst II	
SIGNATURE N/A		<b>DATE</b> 5/19/2015	

RECEIVED: May. 19, 2015

Sundry Number: 63371 API Well Number: 43047399550000

					IS ROC			
				Opera	ation S	Summa	ary Report	
Well: NBU 1022	-2D		Spud Co	nductor: 1	1/17/2009	17/2009 Spud date: 1/26/2009		
Project: UTAH-L	JINTAH		Site: NBI	J 1022-20	)			Rig name no.: GWS 1/1
Event: WELL W	ORK EXPENSE		Start dat	e: 4/24/20	15			End date: 4/28/2015
Active datum: R Level)	: RKB @4,993.00usft (above Mean Sea			UWI: 0/	10/S/22/E	E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
4/23/2015	7:00 - 10:00	3.00	MAINT	35	D	Р		travel to location. Trip plunger. Rig up. Rih jar up on spring @ 8023 for 10mins. Rih jar up on tubbing stop @ 8023. pooh. Rig down. Ready for workover.  Travel back to shop. Thank you.
4/24/2015	7:00 - 7:30	0.50	MAINT	48				MIRU
	7:30 - 17:24	9.90	MAINT	45	A	Р		MIRU, BLOW DWN WELL, KILL WELL,10 BBLS TBG, 20 BBLS CSG, NDWH, NU BOP'S, TEST BOP'S, UNLAND, TIH TAG 8268', RU PRS, SCAN TBG OOH, TROUBLE CONTROLLING WELL, BLOW DWN, PUMP 30 BBLS DWN CSG 132 RED, 126 BLUE-YELLOW BAND,RD PRS, BTM 3 JTS FULL OF SAND
	17:24 - 17:00		MAINT	31	I	Р		PU POBS, MILL, TIH 162 JTS, SWIFWE
4/27/2015	7:00 - 7:30	0.50	MAINT	48		Р		TRIPPING
	7:30 - 11:00	3.50	MAINT	31	I	Р		FLOWING OVER WE, 175# CSG, 550# TBG, WOULD,NOT BLOW DWN, KILLED TBG WITH 40 BBLS T-MAC, TIH TO TAG FILL, 8168'
	11:00 - 14:00	3.00	MAINT	44	D	Р		RU WEATHERFORD, BREAK CIRC, ATTEMP TOC/O TO 8689' PBTD, TAG HARD AT 8268' POSSIBLY POBS.METAL SHAVINGS IN RTNS.
	14:00 - 17:30	3.50	MAINT	31	I	Р		RD WEATHERFORD, RD PWR SWIVEL, POOH STD BACK 121 STDS, ND POBS, NU XNSN, NC, TIH IN AM. SWIFN
4/28/2015	7:00 - 7:30	0.50	MAINT	48		Р		ND BOP'S
	7:30 - 12:00	4.50	MAINT	31	I	Р		BLOW DWN WELL, KILL WELL WITH 20 BBLS T-MAC, PU XNSN, NC, 243 JTS TBG, TIH TO 7694', LAND TBG, ND BOP'S, NU WH, HOOK UP PROD LINE, RDMO
5/2/2015	7:00 - 17:00	10.00	PROD	42	В	P		Starting pressure Tb 180 PSI CA 590 PSI Started swabbing & Made 8 runs Fluid level was at 6000ft Recovered 30 bbl. Well tried to unload for a while and then it would die, went after again and it did this for a couple times, tried to send it down the sales a couple times but casing would start climbing and well would die. Shut well in for the day and headed back to the shop Ending Pressure Tb 10 PSI CA 530 PSI

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	Number:					KIES RE		
Operation Summary Report								
Vell: NBU 1022	!-2D		Spud Co	nductor: 1	/17/2009		Spud date: 1/2	26/2009
roject: UTAH-L	JINTAH		Site: NBI	J 1022-20	)	_		Rig name no.: GWS 1/1
vent: WELL W	ORK EXPENSE		Start date	e: 4/24/20	15			End date: 4/28/2015
Active datum: RKB @4,993.00usft (above Mean Sea UWI: 0/10/S/22/E/2/0/NWNW/6/PM/N/1,090.00/W/0/990.00/0/0 Level)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
5/4/2015	7:00 - 17:00	10.00	PROD	42	В	P		Starting pressure Tb 240 PSI CA 560 PSI Started swabbing & Made 6 runs Fluid level was at 5900ft Recovered 30 bbl. Swabbed well back on, well unloaded for about an hour. Operator came and wanted to drop a scale knocker, so we did and started tripping it. Tripped 3 times & it was coming up on 30 minutes with the help of the bypass. Finally the last time well died. Shut well in and headed back to the shop. Ending Pressure Tb PSI CA 430 PSI
5/5/2015	7:00 - 17:00	10.00	PROD	42	В	P		Starting pressure Tb 230 PSI CA 520 PSI Started swabbing & Made 5 runs Fluid level was at 6000ft Recovered 24 bbl. Swabbed well back on, scale knocker came 4 times & still was taking from 20-25 minutes helping it with bypass. At the end I left it blowing to see if she will get better pressures but it didn't so shut well in & headed back to the shop. Ending Pressure Tb 30 PSI CA 410 PSI
5/6/2015	7:00 - 21:00	14.00	PROD	42		Р		Swabbed well back on, scale knocker came, casing didn't want to drop very well so we left it blowing to tank for a while. Pressures looked better so we started tripping scale knocker, it was coming up on 25 minutes with the hep of bypass. Set well back to sales and headed back to the shop. FL 5500
5/7/2015	7:00 - 17:00	10.00	PROD	42	В	P		Starting pressure Tb 150 PSI CA 480 PSI Started swabbing & Made 1 run Fluid level was at 6700ft Recovered 26 bbl. Swabbed well back on, tripped scale knocker once. Pressures still didn't look good & it was taking 35 minutes or so. We put it through separator on open sales for over night & it was looking better. Called it a day & headed back to the shop. Ending Pressure Tb 120 PSI

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CA 390 PSI